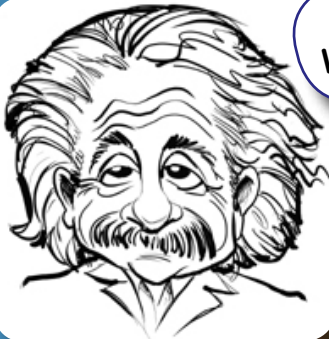


# LODESTONE PACIFIC

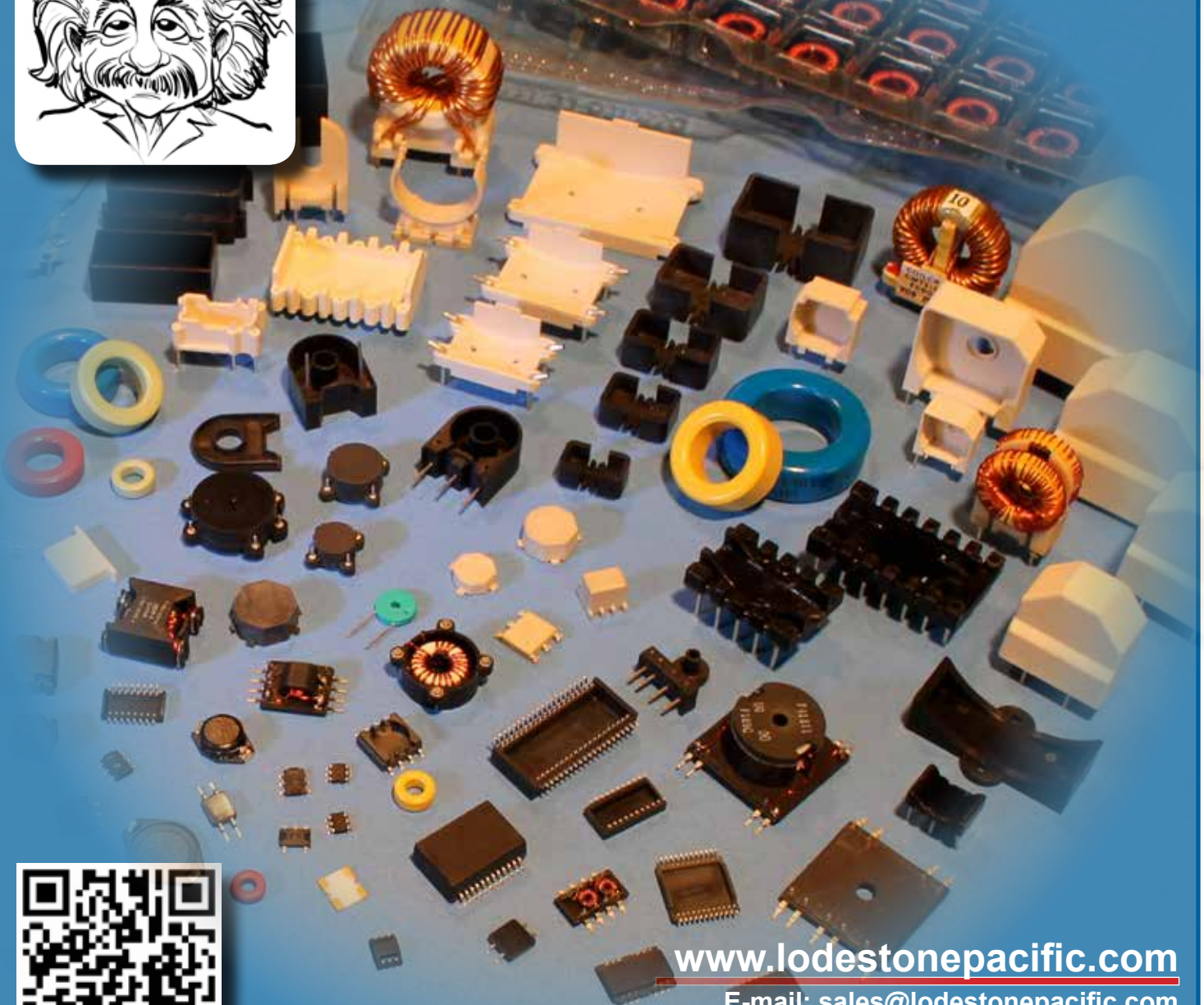
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Issue L, Rev. 0



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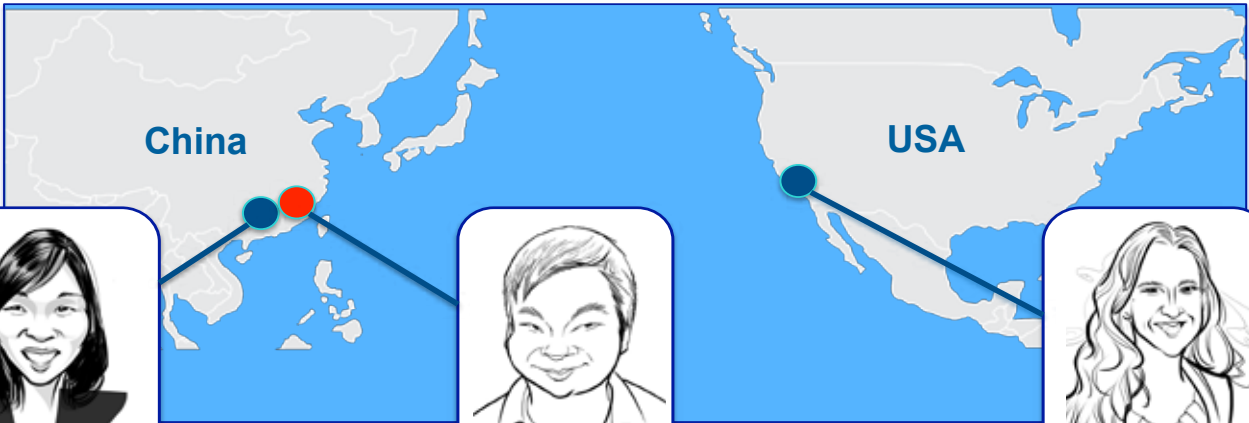


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### SURFACE

Shape Code  
 SMRF= SMD Ceramic Mounts  
 STM = Surface Toroid Mount  
 SMD = Surface Mount Device

**STM 560 - 4**

Approximate Size  
 (Hundredths of inches)  
 No. of Terminals

Sorted by the Maximum Wound  
 Toroid Diameter to fit the Mount

Part No.	Page	Max Dia.
----------	------	----------

STM153-6	7	.150 [3.81]
SMD166-6	7	.165 [4.19]
STM265-4	8	.300 [7.62]
STM270-06	8	.260 [6.60]
STM281-8	8	.280 [7.11]
SMRF258-4	9	.300 [7.62]
STM303-04/175	9	.310 [7.87]
STM360-4	9	.320 [8.13]
STM366-6	10	.360 [9.14]
STM30LC-02	10	.375 [9.52]
STM376-8	11	.375 [9.52]
STM391-8	11	.400 [10.1]
STM37CS-06	11	.405 [10.3]
STM403-04/190	12	.410 [10.4]
STM40LCC-04	12	.440 [11.2]
STM460-4	12	.445 [11.3]
STM453-06/195	13	.460 [11.7]
STM37LCC-04	13	.485 [12.3]
STM37LC-02	13	.490 [12.4]
STM37HC-02	14	.500 [12.7]
STM44LC-02	14	.530 [13.5]
STM44LCC-04	14	.530 [13.5]
STM560-4	15	.560 [14.2]
STM44HC-02	15	.580 [14.7]
STM581-8	15	.581 [14.7]
STM44HCC	16	.600 [15.2]
STM50LCC-04	16	.605 [15.4]
STM50LC-02	17	.610 [15.5]
STM50HC-02	17	.650 [16.4]
STM50HCC-02	17	.680 [17.3]
STM881-8	18	.805 [20.4]
CUPS	18	----
STM68HC-02	18	.840 [21.3]
STM68HCC-02	19	.880 [22.3]
STM80HCC-04	19	.890 [22.5]

### HORIZONTAL

Shape Code  
 TM = Toroid Mount  
 TR = Toroid Retainer  
 HTC = Horizontal Toroid Cup  
 HTM = Horizontal Toroid Mount  
 TCM = Toroid Common Mode

**TM 401 - 4**

Approximate Size  
 (Hundredths of Inches)  
 No. of Terminals

Sorted by the Maximum Wound  
 Toroid Diameter to fit the Mount

Part No.	Page	Max Dia.
----------	------	----------

TM251-4	20	.195 [4.95]
TM200-4	20	.200 [5.08]
TM305-06	21	.305 [7.75]
HTC315-4	21	.335 [8.50]
TM381-5	21	.340 [8.64]
TM401-4	22	.340 [8.64]
TM401-5	22	.340 [8.64]
TM401-6	22	.340 [8.64]
CUPS	22	----
HTC433-4	22	.437 [11.1]
TM411-8	23	.400 [10.2]
TM507-4	23	.400 [10.2]
TM450-6	23	.450 [11.4]
HTM461-6	24	.460 [11.7]
TM475-8	24	.470 [12.0]
TM501-4	25	.550 [14.0]
TM501-6	25	.550 [14.0]
TM551-8	25	.550 [14.0]
HTM601-6	25	.600 [15.2]
HTC583-0	26	.602 [15.3]
HTC583-4	26	.602 [15.3]
TM650-8	26	.650 [16.5]
HTC764-0	26	.819 [20.8]
HTC764-4	26	.819 [20.8]
TM850-8	27	.850 [21.6]
HTM851-6	27	.850 [21.6]
HTC965-0	28	.972 [24.7]
HTC965-4	28	.972 [24.7]
HTC1208-0	28	1.19 [30.2]
HTC1208-4	28	1.19 [30.2]
TCM120-04	29	1.21 [30.7]
XM1300-08	29	1.50 [38.1]
HTC1890-04	29	1.89 [48.0]
TR Series	30	----
Large TR Series	30	----

### VERTICAL

Shape Code  
 VTM = Vertical Toroid Mount  
 VTB = Vertical Toroid Boat  
 TS = Toroid Spacer  
 VTC = Vertical Toroid Cup  
 KM = Klip Mount

**VTM 600 - 6**

Approximate Size  
 (Hundredths of Inches)  
 No. of Terminals

Sorted by the Maximum Wound  
 Toroid Diameter to fit the Mount

Part No.	Page	Max Dia.
----------	------	----------

VTM225-2	31	.225 [5.72]
VTM370-4	31	.370 [9.39]
VTM421-02	32	.320 [8.13]
VTM421-03	32	.320 [8.13]
KM44	32	.450 [11.4]
VTM455-4	32	.455 [11.6]
KM50	33	.550 [14.0]
VTM555-4	33	.555 [14.1]
VTM590-3	34	.590 [15.0]
VTM620-2	34	.590 [15.0]
VTM600-6	35	.600 [15.2]
VTC613-4	35	.630 [16.0]
VTM650-6	35	.650 [16.5]
KM68	36	.725 [18.4]
VTB750-2	36	.755 [19.1]
VTM800-08	36	.785 [19.9]
VTC774-4	37	.790 [20.0]
KM80	37	.850 [21.6]
VTM880-10	38	.850 [21.6]
VTM900-6	38	.900 [22.9]
VTC935-4	38	.950 [24.1]
VTM955-4	39	.955 [24.3]
VTB984-2	39	.980 [25.0]
VTM1060-08	40	1.04 [26.4]
VTM1050-10	40	1.05 [26.7]
VTM1100-6	40	1.10 [27.9]
KM106	41	1.15 [29.2]
VTM100-0	41	1.15 [29.2]
VTM100-4	41	1.15 [29.2]
VTM1220-10	41	1.17 [29.7]
VTC1156-4	42	1.18 [30.0]
VTM120-0	42	1.20 [30.5]
VTM120-4	42	1.20 [30.5]
VTM1300-14	42	1.30 [33.0]
VTC1227-4	43	1.30 [33.0]
VTB1360-04	43	1.36 [34.5]
VTB1200-012	43	1.40 [35.6]
VTM160-0	44	1.60 [40.6]
VTM160-4	44	1.60 [40.6]
VTM1600-02	44	1.70 [43.2]
VTB2250-0	45	1.96 [48.8]
VTM2500-02/4	45	2.50 [50.0]
VTM254-0	45	2.54 [64.5]
VTM254-4	45	2.54 [64.5]
VTM280-0	46	2.80 [71.1]
VTM280-4	46	2.80 [71.1]
VTM3000-02/4	46	3.00 [66.0]
TS Toroid Spacers	46	



Precision  
Tool Making



Efficient  
Plastic Molding



Automated  
Terminal Insertion



Formal  
Quality Systems



Packing Trays		
Part No.	Page	Cavities
TY28X65	48	280
TY37X47	49	260
TY50X50	50	200
TY45X70	51	150
TY74X77	52	100
TY65X100	53	75
TY85X116	54	50
TY122X140	55	35
TY1000	56	Cover

## Selecting the Best Plastic for Your Application

**Thermoplastic vs. Thermoset** Plastics used in molding toroid mounts and headers come in two broad categories, thermoset and thermoplastic. Thermoset plastics include epoxies, phenolics and Diallyl Phthalate (DAP) that are known for their environmental stability and ability to tolerate over 750° F without melting. Thermoplastics include nylon, polypropylene, polycarbonate, polyester (Valox, Rynite), LCP (Vectra) and PPS (Ryton) that will begin to melt if they experience temperatures above 500° F for an extended period. The chemistry that gives thermoplastics a lower melting point also makes them less expensive to mold, providing a cost advantage over thermoset plastics.

Thermoplastics are widely used in applications that do not experience temperatures above 500° F, except for a few seconds during the winding lead to terminal and component to PCB soldering process. There are trade-offs between the two plastic types that must be considered. The mount may be less expensive if molded from thermoplastic but will require pre-tinning the winding leads and careful heat management while soldering the leads to the mount and soldering the mount to the circuit board. The thermoset mount can be more expensive, but with self stripping magnetic wire, several terminations can be soldered at once and the wire will not need to be stripped or pre-tinned, possibly making the overall cost of producing the component lower. In addition, with RoHS requirements that remove lead, plastics will be experience higher solder temperatures that will push the limits of thermoplastics.

The table below provides information about all materials used in this catalog. This table is for reference only and is intended to provide general information about the materials. The various plastic types within the thermoplastic or thermoset categories will have individual characteristics that relate to moldability, roughness, brittleness, flexibility, thermal expansion, moisture absorption, dielectric constant, volume resistivity, and cost. Current material performance information can be found on the material manufacturer's web site. All of the plastic materials used in Lodestone Pacific toroid mounts and headers are UL Approved and traceable to the UL Recognized material manufacturer. Lodestone Pacific can provide certifications of materials based on the UL file No. for the materials as found on the materials "UL Yellow Card." RoHS and REACH Certification on all materials in this table are available from our On-Line REACH Database. [www.lodestonepacific.com/reach](http://www.lodestonepacific.com/reach)

Material Type	Mat'l Code	Mfg	Mfg Web Site	Trade Name	UL Card No.	UL Flammability	System Class **	RoHS Compliant	Halogen Free
<b>THERMOSET</b>									
Phenolic	PH	Sumitomo	www.sumitomo-chem.co.jp	PM-9630	E41429	UL94-VO	N (200°C)	Yes	No
Phenolic	PH2	Sumitomo	www.sumitomo-chem.co.jp	PM-9820	E41429	UL94-VO	N (200°C)	Yes	No
Phenolic	PH3	Chang Chun	www.ccp.com.tw	T357 / T373J / T375J	E59481	UL94-VO	F (155°C)	Yes	No
Phenolic	PH4	Hitachi	www.hitachi.us	CP-J-8700	E42956	UL94-VO	F (155°C)	Yes	No
Diallyl Phthalate	DAP	Synress-Almoco	www.electricity-tool.com	5562	E48036	UL94-VO	F (155°C)	Yes	No
Diallyl Phthalate	DAP2	Cosmic	www.cosmic.vcar.com	D72	E64213	UL94-VO	F (155°C)	Yes	No
Diallyl Phthalate	DAP3	Sumitomo	www.sumitomo-chem.co.jp	52-70-70	E123472	UL94-VO	F (155°C)	Yes	No
Diallyl Phthalate	DAP4	Wah Hong	www.wahhong.com	WH-9100	E150608	UL94-VO	B (130°C)	Yes	No
<b>THERMOPLASTICS</b>									
Glass Filled Nylon	GFN	DuPont	www.dupont.com	FR50	E41938	UL94-VO	F (155°C)	Yes	No
Glass Filled Nylon	GFN1	DuPont	www.dupont.com	HTNFR52630NH	E41938	UL94-VO	F (155°C)	Yes	Yes
Glass Filled Nylon	GFN2	DuPont	www.dupont.com	70G33L	E41938	UL94-HB	F (155°C)	Yes	No
Glass Filled Nylon	GFN3	DuPont	www.dupont.com	132F/101L (Zytel)	E41938	UL94-V2	B (130°C)	Yes	No
Glass Filled Nylon	GFN4	RTP	www.rtpcompany.com	RTP205FR	E84658	UL94-VO	F (155°C)	Yes	No
Glass Filled Nylon	GFN5	DSM Co.	www.dsm.com	TE250F8 (Stanyl)	E172082	UL94-VO	B (130°C)	Yes	No
Glass Filled Nylon	GFN7	Ginar Tech	www.ginar.com	AN4720SN	E154352	UL94-HB	B (130°C)	Yes	No
Glass Filled Nylon	GFN8	Assend	www.ascendmaterials.com	Vydyne 909	E70062	UL94-VO	F (155°C)	Yes	No
Polyethylene	PET	DuPont	www.dupont.com	FR530 (Rynite)	E41938	UL94-VO	N (200°C)	Yes	No
Polyethylene	PET2	DuPont	www.dupont.com	RE19041 (Rynite)	E41938	UL94-VO	N (200°C)	Yes	Yes
Poly Butylene	PBT	Chang Chun	www.ccp.com.tw	4130	E59481	UL94-VO	B (130°C)	Yes	No
Polyphenylene	PPS	Phillips	www.philips.com	R-4 (Ryton)	E54700	UL94-VO	F (155°C)	Yes	No
Polyphenylene	PPS2	Poly Plastics	polyplasticproduct.com	1140	E109088	UL94-VO	B (130°C)	Yes	No
Liquid Crystal	LCP	Sumitomo	www.sumitomo-chem.co.jp	E4008	E54705	UL94-VO	F (155°C)	Yes	Yes
Liquid Crystal	LCP2	Ticona	www.ticona.com	6130L (Zenite)	E344082	UL94-VO	N (200°C)	Yes	Yes
Liquid Crystal	LCP3	Nippon	www.negamerica.com	HM402	E91944	UL94-VO	F (155°C)	Yes	Yes

**Notes:**

- \* Not all products are available in all materials. Material lots are traceable to the plastic manufacturer. Percent of Re-Grind at or below manufacturer's recommendations. Material specifications available at [www.lodestonepacific.com/reach](http://www.lodestonepacific.com/reach)
- \*\* Insulation System Class Temperature is for use as mechanical support. Review specific insulation systems to determine if the material is suitable as a ground insulation or as mechanical support at a higher temperature class.

## Agency Regulations

**Underwriters Laboratory (UL)** is a non-profit private agency that evaluates public safety for a variety of products that include electronic devices. UL regulations are focused on maintaining the integrity of an insulation system so a short circuit does not occur. This is done by first ensuring the insulation structure within a component is sufficient and that it will not degrade over time.

UL opens a file for each plastic manufacturer where it records the safety ratings for each manufacturer's plastic. On this UL file or "Yellow Card", each plastic will be rated by temperature class and flammability. The UL temperature class designates the maximum temperature a plastic will tolerate during normal operation. Design engineers need to understand the temperature demands of their application and select a plastic to match.

**The UL94 Flammability Rating** is a measure of whether a plastic will self extinguish when held over a flame and then removed. The faster the plastic stops supporting a flame, the higher the flammability rating. If components are going to be used in a consumer or industrial application, the highest rating of VO is generally required. All Lodestone Pacific plastics are rated UL94-VO.

**UL Standard 1446:** In a transformer or inductor, the integrity of the wire insulation is a critical safety concern. Transformer components that include wire insulation, bobbin, toroid mounts, tape, ferrite, iron powder, varnish, epoxy, and glues each have their own unique chemistry. UL conducts extensive testing under UL Standard 1446 to ensure that the chemistry of one component, or several components in combination, do not have an adverse effect on the component's wire insulation over time and at an elevated temperature.

Once this combination of ingredients are tested and approved, all the tested subcomponents become part of a UL recognized insulation system specific to an operating temperature or class. For a design engineer designing a product, using the sub-components listed in a recognized insulation system will insure reliable insulation and proven sub-component compatibility.

## Requirements on Hazardous Substances, or RoHS.

The electronics industry worldwide has developed several programs that limit or eliminate specific elements and compounds that are harmful to the environment from component construction. An important directive is the Requirements on Hazardous Substances, or RoHS. This directive seeks to eliminate or reduce 6 harmful elements or compounds. While some flame-retardants in plastic moldings need to be replaced, the most significant banned element in the RoHS directive is lead (Pb) that is used in plating and solder on terminals.

**Removing Lead Increases Solder Temperatures:** When tin (Sn) and lead (Pb) are combined in an alloy of approximately 60% tin and 40% lead, this alloy has a melting point of approximately 361°F (183°C). When you "get the lead out", the fundamentals of solder connections change significantly. Solder alloys that are more than 95% tin have a 90°F (50°C) higher melting point. (Approximately 450°F, 230°C). Components, including the plastic moldings, must now tolerate this increased solder temperature during the solder process.

Thermoplastics like Nylon, PET, and PPS will become soft above 450°F (230°C), especially when heat is transferred up a terminal. If the plastic experiences these temperatures for an extended time, the terminals will begin to "float" in the plastic, and drift out of alignment. Using plastics that are not properly engineered for process temperatures, or do not meet the requirements of agency regulations, will have the potential to fail. All plastics used in Lodestone Pacific products are RoHS compliant and certified to a UL Temperature Class. For more information, visit [www.lodestonepacific.com/reach](http://www.lodestonepacific.com/reach)

## REACH Directive

REACH is a European Union (EU) Regulation that stands for Registration, Evaluation, Authorization, and Chemicals. REACH is a far-reaching legislation that affects certain manufacturers and distributors of chemicals and articles sold into the EU. Lodestone Pacific is not required to register as a manufacturer under REACH since all polymers (plastics) are specifically excluded from REACH and the articles in this catalog do not "intentionally release" chemicals targeted by the regulation. However, users of our products may need to certify Lodestone Pacific's products do not contain regulated materials in excess of the regulations limits.

## RoHS and REACH Documents Database

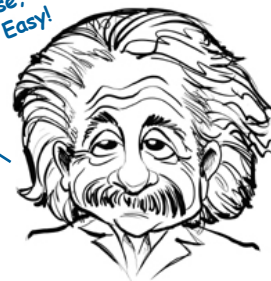
All documentation related to elements and compounds in this catalog are maintained in the Lodestone Pacific RoHS and REACH database. From this browser based database on our web site, customers can view and download certifications for all our products and the documents requested that assure REACH Conformance.

To access the REACH database, go to [www.lodestonepacific.com/reach.php](http://www.lodestonepacific.com/reach.php)

UL Class	Max Temperature Rating
A	105°C (221°F)
B	130°C (266°F)
F	155°C (311°F)
H	180°C (356°F)
N	200°C (392°F)

UL94 Rating	Flammability Specifications
VO	Will support combustion for up to 10 seconds and self extinguishes when tested under specific conditions.
V1 & V2	Will support combustion for up to 30 seconds and self extinguishes when tested under specific conditions. V2, dripping melted material allowed.
HB	Slow burning on horizontal specimen; burn rate <76mm per min for a thickness < 3mm.
For more information: <a href="http://www.lodestonepacific.com">www.lodestonepacific.com</a>	

Try Our REACH Database. It's Relatively Easy!



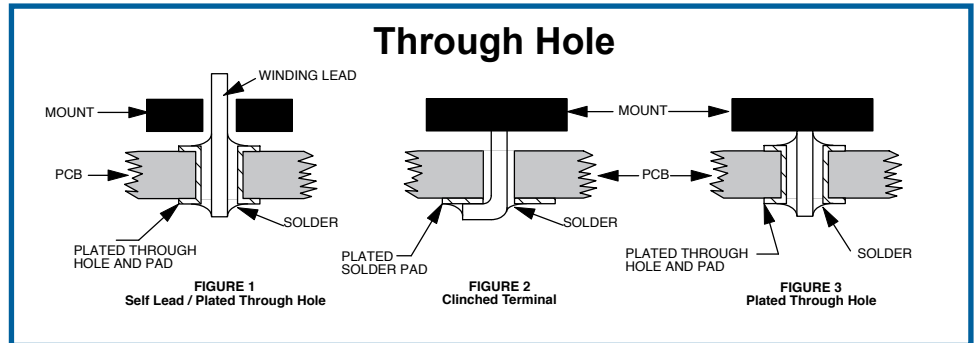
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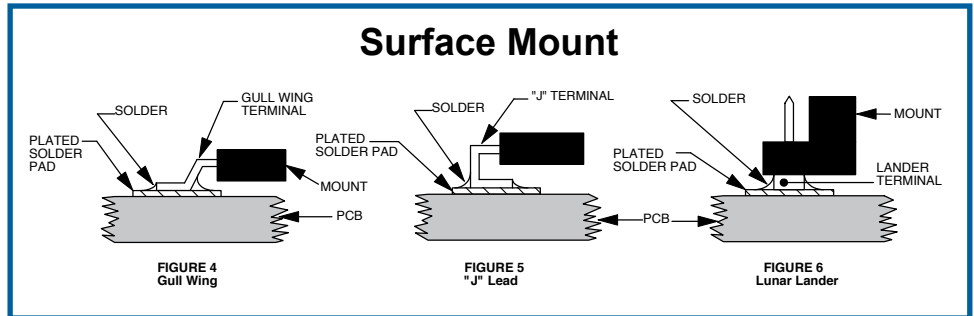


## Connection Integrity

**Through Hole:** Magnetic devices are relatively heavy components on a circuit board and therefore the mechanical characteristics of the solder connection are as important as its electrical integrity. Whether using a fixed terminal or the wound component's lead to self lead (Figure 1), the solder connection is critical. Printed circuit boards with unplated through holes may require a clinched terminal as described in MIL-STD-2000 (Figure 2). This will avoid stresses that contribute to an intermittent or failed connection. Printed circuit boards with plated holes offer good mechanical integrity without clinching, providing a successful intermetallic bond is created during the board solder process (Figures 1 & 3). Through hole diameter in relation to terminal diameter is also important to connection integrity. The recommended printed circuit board hole clearance should be at least .006 inches, but no more than .028 inches. This will facilitate the flow of solder to both ends of a plated through hole and allow the outgassing of contaminants that will interfere with a strong intermetallic bond.



**Surface Mount:** A toroid mount is essential to mounting a wound toroid to a circuit board using surface mount technology. The most widely used surface mount termination styles are either gull wing (Figure 4), or "J" lead (Figure 5). The gull wing style is widely used because it is relatively inexpensive to mold into the plastic body and to bend into position. The gull wings are somewhat flexible, which allows them to absorb the strain of thermal expansion and contraction. It is also easier to visually inspect the gull wing solder connection. The "J" lead also has wide acceptance because it uses up less board real estate than the gull wing and can absorb the strain of thermal expansion. However, the "J" lead to board solder connections are hidden from inspection and the leads are more difficult to form, making them more expensive. New surface mount techniques are being introduced to the industry constantly. One style is the "Lunar Lander" (Figure 6). The "Lunar Lander" incorporates a round lead



style that is more rigidly supported by the plastic molding. This style is very robust and will tolerate handling and shipping with little or no effect on the co-planarity. It is not flexible with thermal expansion and is harder to visually inspect, but it uses little extra board real estate. Self terminating surface mount components are also popular. This technique uses the wound components leads, positioned by the toroid mount, to make the solder connection. For more information on toroid mount technology, visit our Web Site at [www.lodestonepacific.com](http://www.lodestonepacific.com).

## Terminals and Solderability

Name	Approximate Composition	Code	Plating	Min Thickness	Flash/Barrier	Min Thickness
Phos Bronze	94.5% Cu, 5% Sn, .5% P	PBZ	100% Tin (Sn)	5 microns (µm)	Nickel (Ni)	2 microns (µm)
Alloy 42	57% Fe, 42% Ni, .2% Si, .4% Mn	A42	100% Tin (Sn)	5 microns (µm)	Nickel (Ni)	2 microns (µm)
Copper Wire	99% Cu	CW	100% Tin (Sn)	5 microns (µm)	Nickel (Ni)	2 microns (µm)
Brass	70% Cu, 30% Zn	BW	100% Tin (Sn)	5 microns (µm)	Nickel (Ni)	2 microns (µm)
Copper Clad Steel	78% Steel, 22% Cu	CP	100% Tin (Sn)	5 microns (µm)		

These terminals meet MIL-STD-1276 with a plating thickness of 200 to 500 micro inches (5 to 12.7 microns) and are coplanar to .002 inches. All component and toroid mounts are inspected to MIL-STD-202, Method 208 for solderability, then handled and stored to avoid transferred or airborne contamination of the terminal as described in MIL-STD-2000. All the terminals listed in this catalog are RoHS compliant.

## Wire Table

Wire Gauge (AWG)	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
Diameter (inches)															
Nominal (Single Build)	.0827	.0659	.0524	.0418	.0334	.0266	.0213	.0170	.0137	.0109	.0088	.0070	.0056	.0048	.0035
Nominal (Heavy Build)	.0838	.0675	.0539	.0431	.0346	.0276	.0223	.0178	.0144	.0116	.0095	.0075	.0060	.0049	.0038
Cross Sectional Area															
Circular mills	6530	4107	2583	1624	1022	642.4	404.0	254.1	159.8	100.5	63.2	39.8	25.0	17.7	9.89
Amperes															
1mA/circular mills	6.54	4.11	2.59	1.62	1.03	0.640	0.400	0.255	0.160	0.100	0.064	0.040	0.025	0.016	0.010
Resistance (ohms/1K ft. 20°C)															
Nominal	1.589	2.524	4.019	6.388	10.13	16.20	25.67	41.02	65.33	103.7	162.0	261.3	414.8	648.2	1079



## Surface Mount Toroid Mounts and Headers

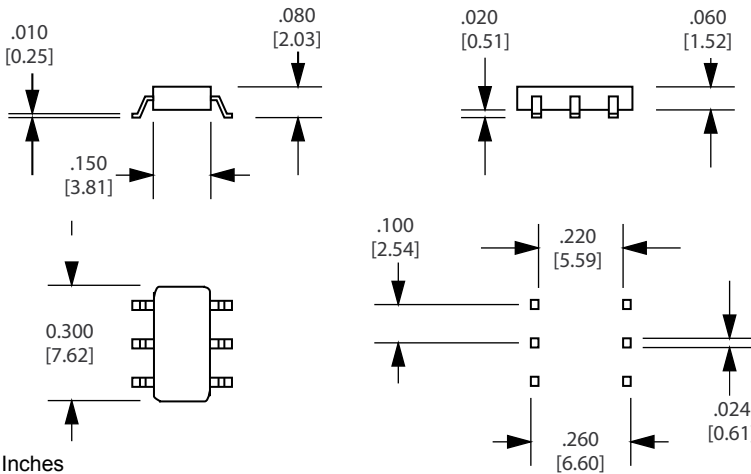
Surface Mount

Horizontal

Vertical

Trays

Fits Packaging Tray  
TY37x47-C



+/- .010 Inches  
(mm) 2 x Size



### STM153-6

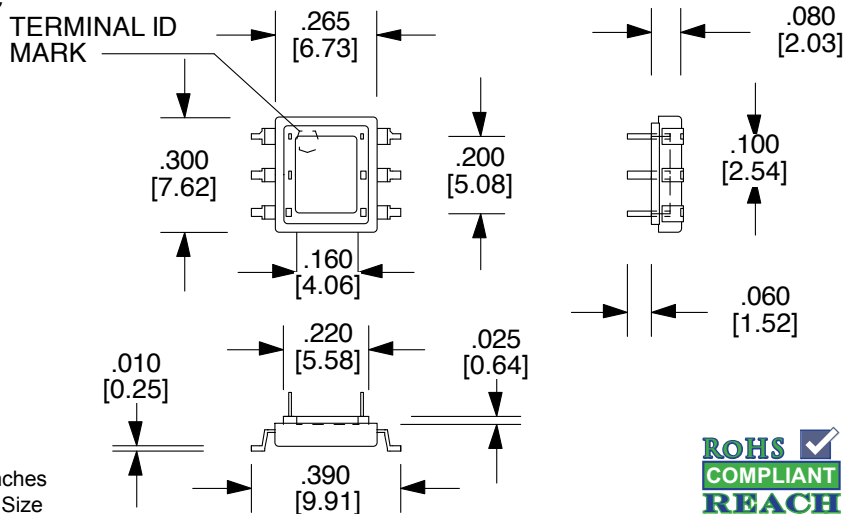
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Phosphorus Bronze  
 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

**Package Tray:** TY37x47-C (280/tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For gull wing surface mount of wound toroids and balun cores up to .150 inches in diameter.

Made in our China Factory

Fits Packaging Tray  
TY37x47-C



+/- .010 Inches  
(mm) 2 x Size



### SMD166-6

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Phosphorus Bronze  
 .020 (.5mm) x .010 (.25mm). 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208

**Package Tray (HIPS):** TY37x47-B (280/tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** Gull wing surface mount version of the industry standard "dual-in-line package (DIP). Encapsulation cups sold separately. (Page 18).

Made in our China Factory

Surface Mount

Horizontal

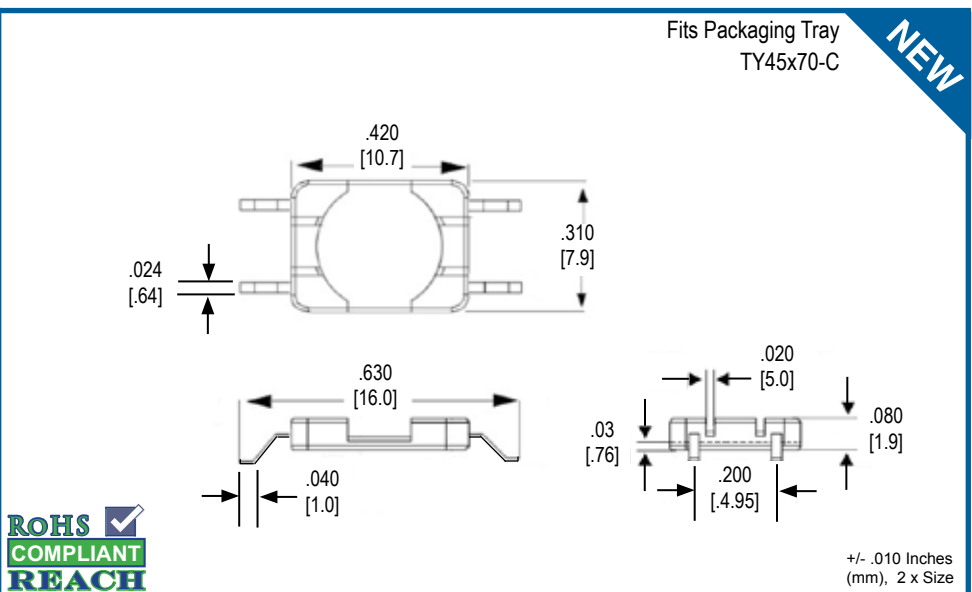
Vertical

Trays

NEW

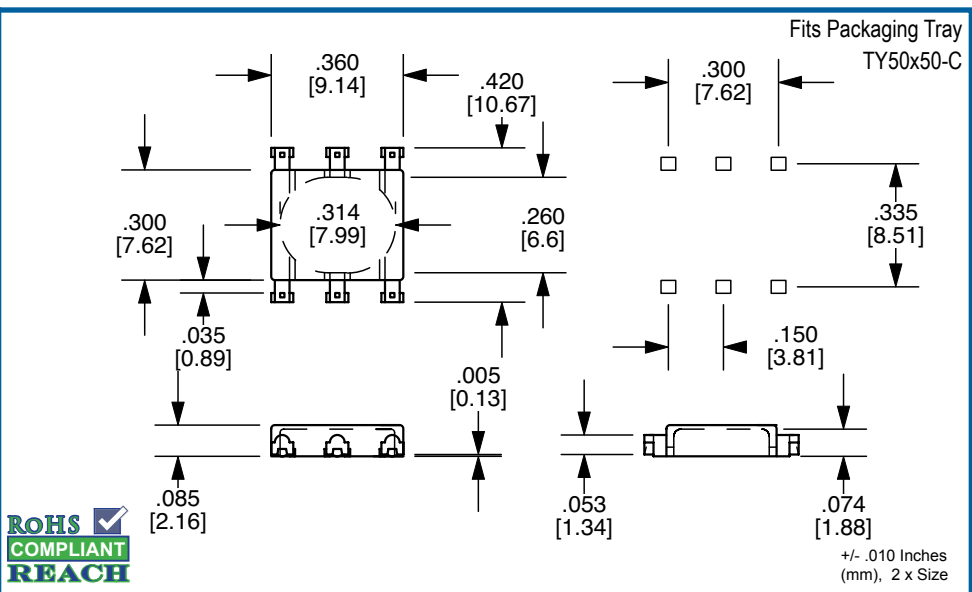
**STM265-4**

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Phosphorus Bronze  
 .024 (.5mm) x .010 (.25mm). 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208  
**Package Tray:** TY45x70-C (150/tray)  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For gull wing surface mount of components and wound toroids cores up to .255 inches in diameter.  
 Made in our China Factory



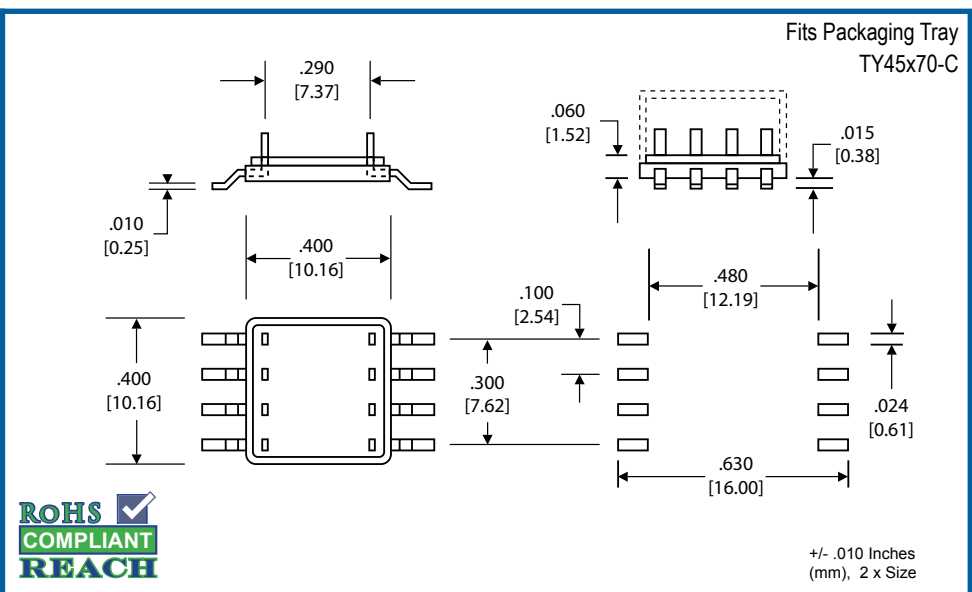
**STM270-06**

**Material:** LCP (Natural)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting of toroids with wound diameters up to .260 and a max height of .070 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during infrared solder reflow.  
 Made in our China Factory



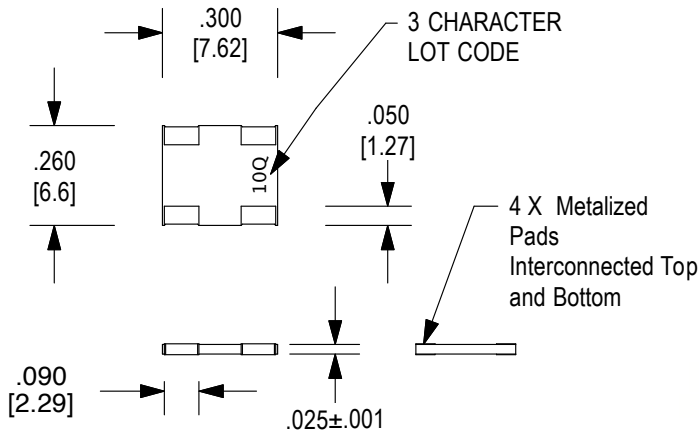
**STM281-8**

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze  
 .020 (.5mm) x .010 (.25mm). 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208  
**Package Tray:** TY45x70-B (150/Tray)  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting of components and wound toroids up to .280 inches in diameter. Encapsulation cover PC280 is available on page 18.





Fits Packaging Tray  
TY37x47-C



+/- .010 Inches  
(mm), 2 x Size

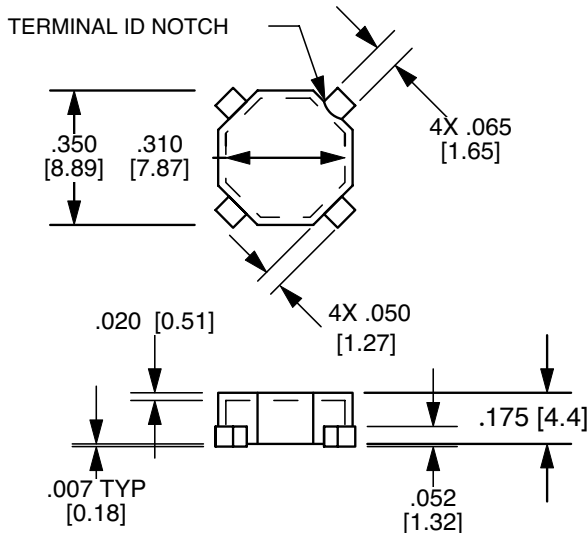


## SMRF258-4

**Material:** Alumina Al<sub>2</sub>O<sub>3</sub> 93% White  
**4 Terminals:** Nickel, Gold Plated  
**Solderability:** Per MIL-STD-202 Method 208  
**Packaging Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For high frequency transformer and inductor applications requiring low dielectric loss.

Made in the USA

Fits Packaging Tray  
TY37x47-C



+/- .010 Inches  
(mm), 2 x Size

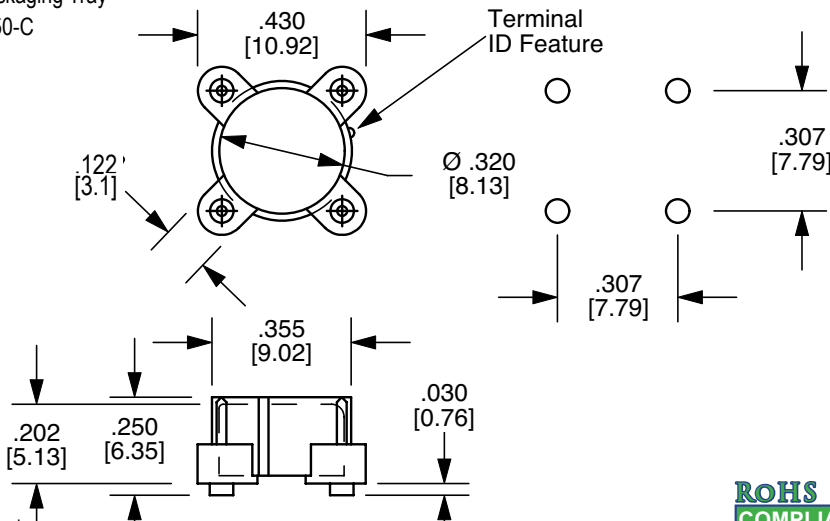


## STM303-04/175

**Material:** LCP2 (Black)  
**UL Rating:** UL94-VO, Class N  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting of toroids with wound diameters up to .303 inches, and .175 inches in height. The toroid leads are tinned and wrapped around the tabs on the toroid mount that then make a direct connection to the PCB. Ideal for automatic pick and place.

Made in our China Factory

Fits Packaging Tray  
TY50x50-C



+/- .010 Inches  
(mm), 2 x Size



## STM360-4

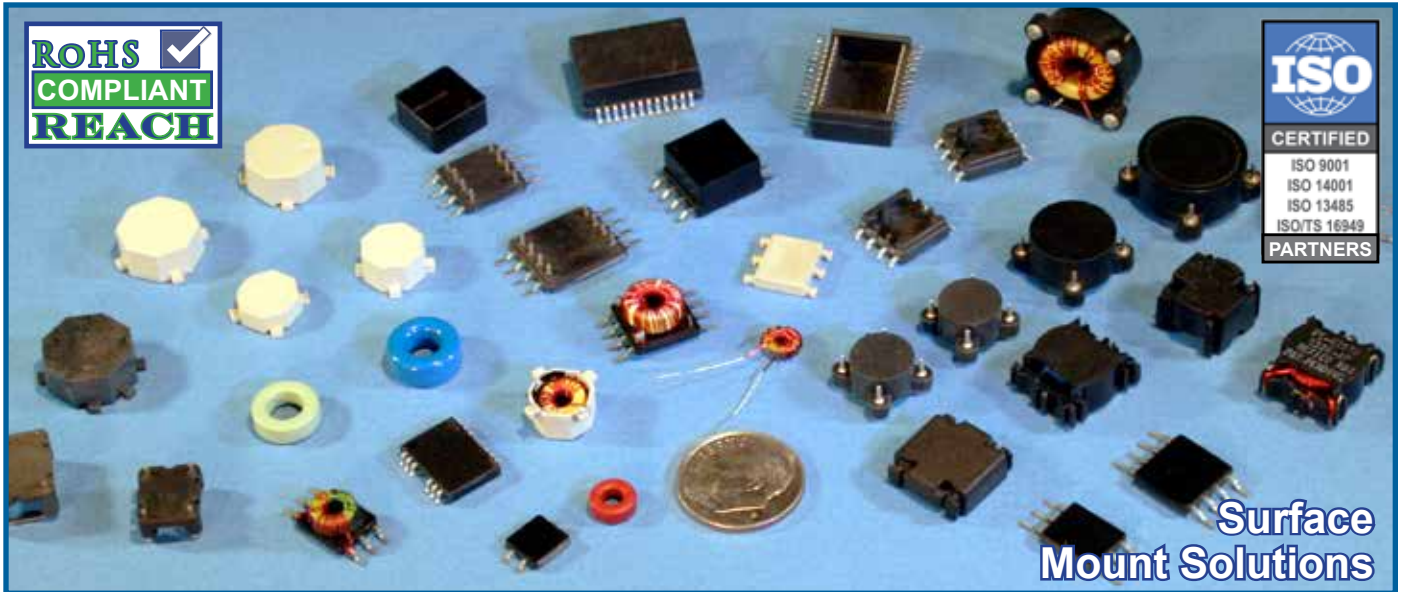
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass - Nickel Flash  
 100% Tin Plate  
**Solderability:** MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting of wound toroids to .32 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate.

Surface Mount

Horizontal

Vertical

Trays



## Surface Mount Solutions

Surface Mount

Horizontal

Vertical

Trays

### STM366-6

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Phosphorus Bronze  
 .020 (.6mm) x .010 (.25mm) 100% Tin Plate.  
**Solderability:** MIL-STD-202 Method 208  
**Package Tray:** TY45x70-B (150/tray)  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For gull wing surface mount of wound toroids and balun cores up to .360 inches in diameter.  
 Made in our China Factory

Fits Packaging Tray TY45x70-C

Dimensions: .010 [0.25], .060 [1.52], .020 [0.51], .360 [9.14], .100 [2.54], .510 [12.95], .024 [0.61], .300 [7.62], .660 [16.76]

ROHS COMPLIANT REACH

+/- .010 Inches (mm), 2 x Size

### STM30LC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags. Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

Fits Packaging Tray TY50x50-C

Dimensions: S, DEPTH, HT., WIDTH, DIA., SLOT WIDTH, LENGTH TOP, X, Y, .060'

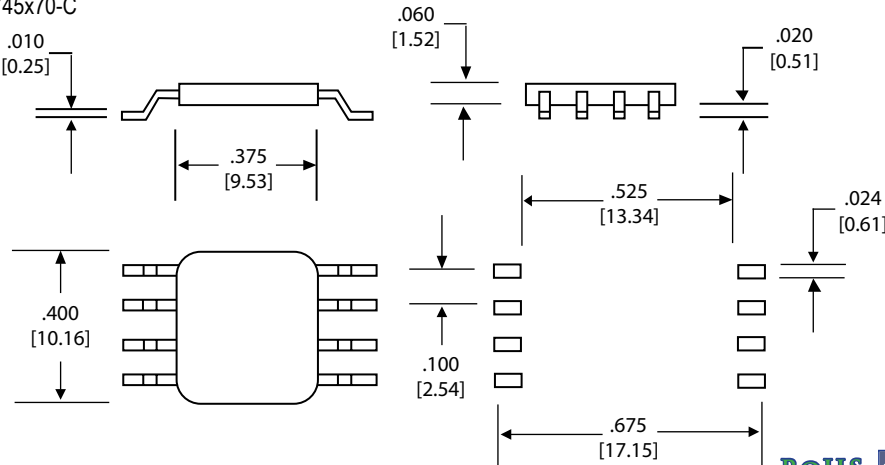
SUGGESTED PCB LAYOUT

ROHS COMPLIANT REACH

± .010 inches [mm] [Not to Scale]

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	S	SLOT	X	Y	Recommended Wire Size
STM30LC-02	.425 [10.79]	.430 [10.92]	.310 [7.87]	.375 [9.52]	.175 [4.44]	.100 [2.54]	.036 [0.91]	.400 [10.16]	.360 [9.14]	#32 (.009) to #20 (.034)

Fits Packaging Tray  
TY45x70-C



+/- .010 Inches  
(mm), 2 x Size



## STM376-8

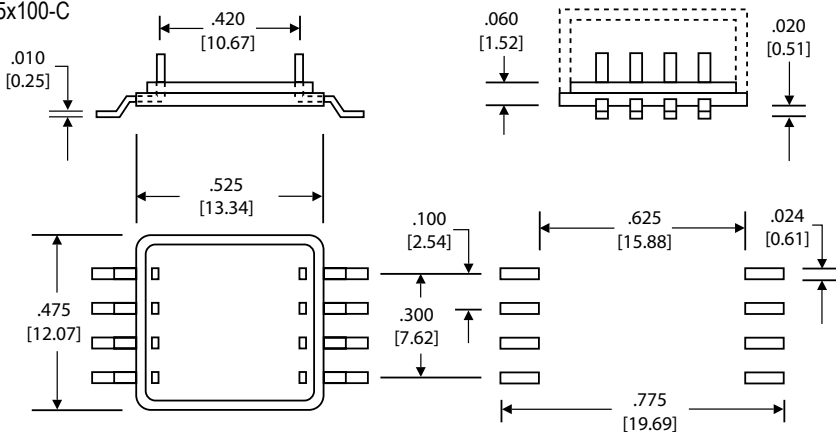
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze  
 .020 (.5mm) x .010 (.25mm). 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

**Package Tray:** TY45x70-B (150/tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For gull wing surface mount of wound toroids and balun cores up to .375 inches in diameter.

Made in our China factory

Fits Packaging Tray  
TY65x100-C



+/- .010 Inches  
(mm), 2 x Size



## STM391-8

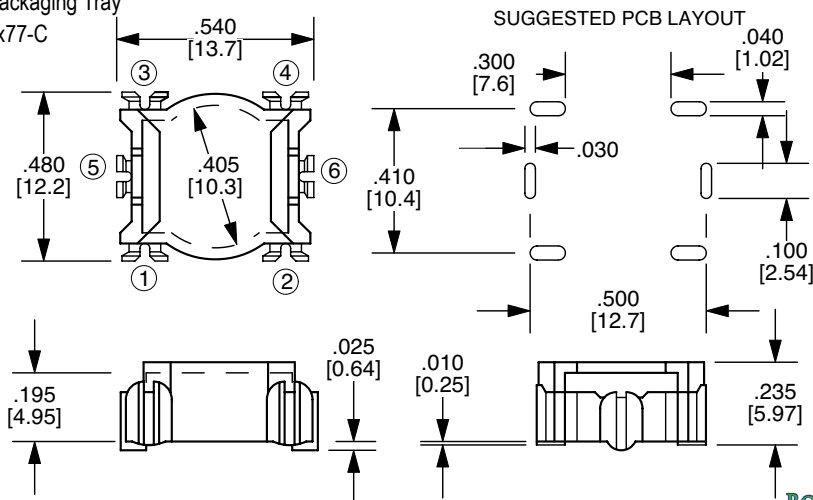
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze  
 .020 (.5mm) x .010 (.25mm) 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208

**Package Tray:** TY65x100-B (75/Tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For surface mounting of components and wound toroids up to .390 inches in diameter. Encapsulation cover PC390 is available on page 18.

Made in our China factory

Fits Packaging Tray  
TY74x77-C



+/- .010 Inches  
(mm), 2 x Size



## STM37CS-06

**Material:** PPS (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For surface mount transformers or current sensors. For toroids up to .400 inches in diameter and uses the toroid's winding leads to surface mount the toroid and case to the PCB. Use #34 AWG (.006) in termination positions 5 & 6, and #24 AWG (.020) in positions 1,2,3 & 4. This product is the patented concept of Pulse Engineering Inc.

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

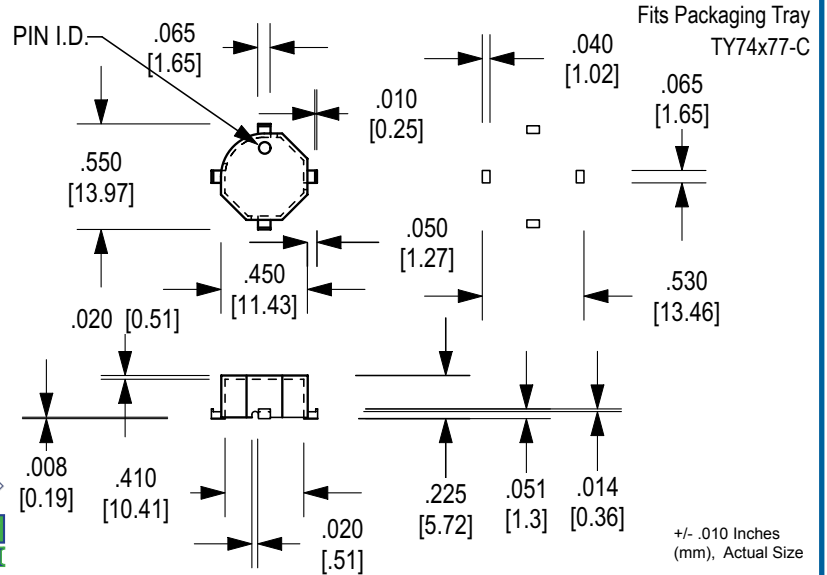
Vertical

Trays

## STM403-04/190

**Material:** LCP (Natural)  
**UL Rating:** UL94-VO, Class N  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting toroids with wound diameters up to .403 inches and .190 inches in height. The toroid leads are tinned, then wrapped around the tabs on the toroid mount. The toroid's leads then make direct contact to the PCB. Ideal for automatic pick and place.

Made in our China factory

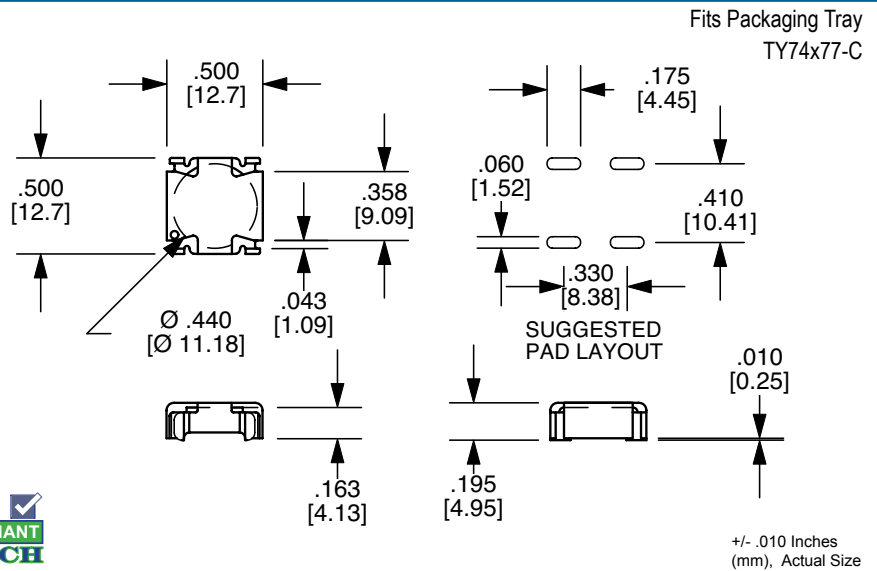


## STM40LCC-04-LCP5

**Material:** LCP5 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** The STM40LCC-04 for inductors and transformers with 4 wire terminations. For wound toroids up to .450 and uses the toroid's winding leads to surface mount the toroid and case to the PCB. The toroid's leads are held in position by the slots incorporated in the case.

This product is the patented concept of Pulse Engineering Inc.



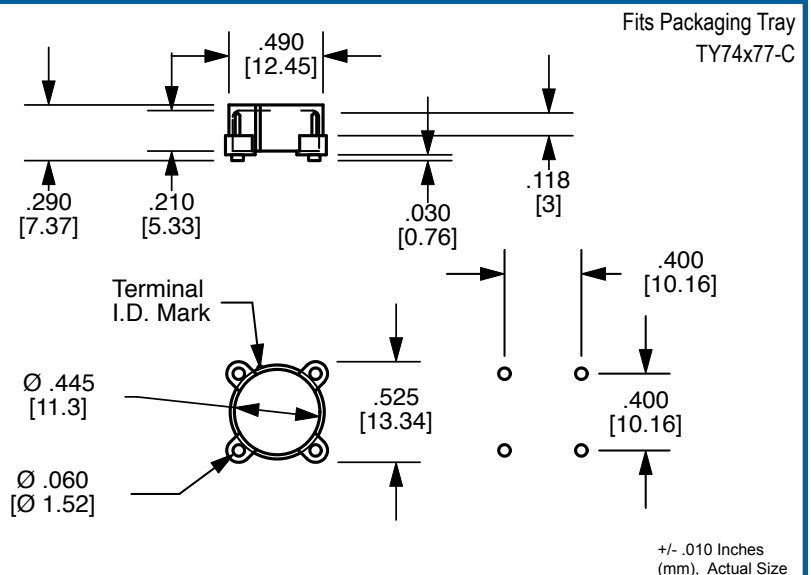
## STM460-4

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass - Nickel Flash  
 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

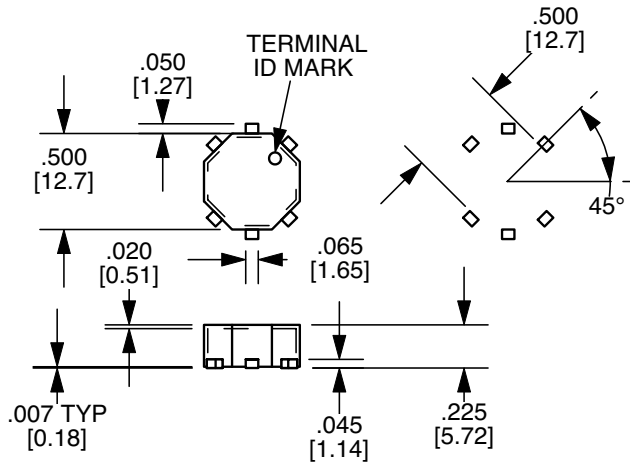
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For low profile surface mounting of wound toroids up to .445 inches in diameter. "Lunar Lander" design improves coplanarity and terminal durability. Ideal for pick and place.

Made in our China factory



Fits Packaging Tray  
TY74x77-C

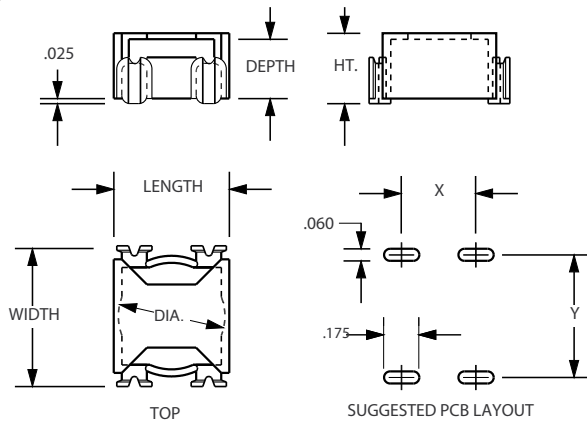


+/- .010 Inches  
(mm), Actual Size

### STM453-06/195

**Material:** LCP (Natural)  
**UL Rating:** UL94-VO, Class N  
**6 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For surface mounting toroids with wound diameters up to .403 inches and .190 inches in height. The toroid leads are tinned, then wrapped around the tabs on the toroid mount. The toroid's leads then make direct contact to the PCB. Ideal for automatic pick and place.  
 Made in our China factory

Fits Packaging Tray  
TY74x77-C



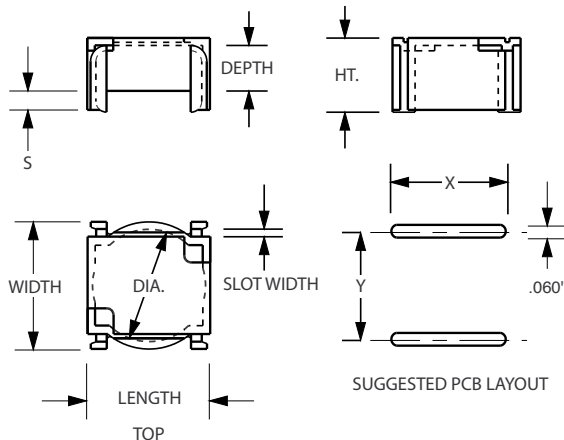
± .010 inches  
(mm) Not to Scale

### STM37LCC-04

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags.  
 Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current coupled inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are positioned by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	X	Y	Recommended Wire Size
STM37LCC-04	.550 [13.97]	.630 [16.00]	.310 [7.87]	.485 [12.31]	.255 [6.47]	.340 [8.63]	.530 [13.46]	# 32 (.009) to # 20 (.034) AWG.

Fits Packaging Tray  
TY74x77-C



± .010 inches  
(mm) Not to Scale

### STM37LC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags.  
 Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are positioned by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	S	SLOT	X	Y	Recommended Wire Size
STM37LC-02	.545 [13.84]	.550 [13.97]	.310 [7.87]	.490 [12.44]	.175 [4.44]	.100 [2.54]	.036 [0.91]	.520 [13.20]	.460 [11.68]	#32 (.009) to #20 (.034)

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

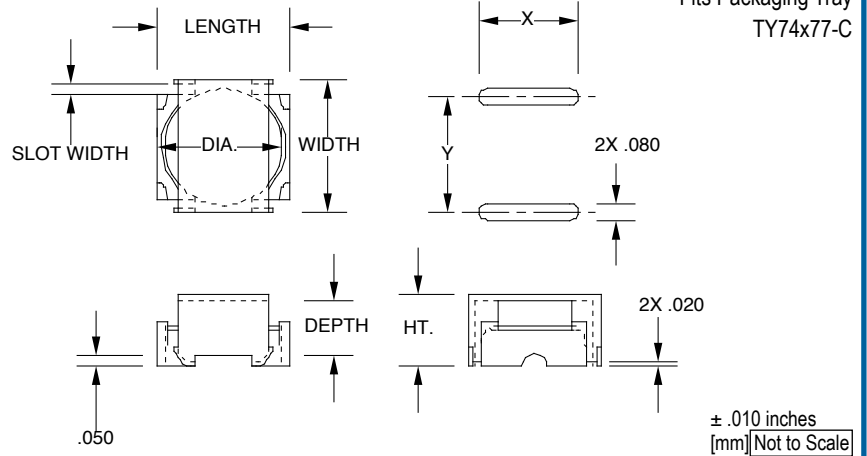
Horizontal

Vertical

Trays

## STM37HC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

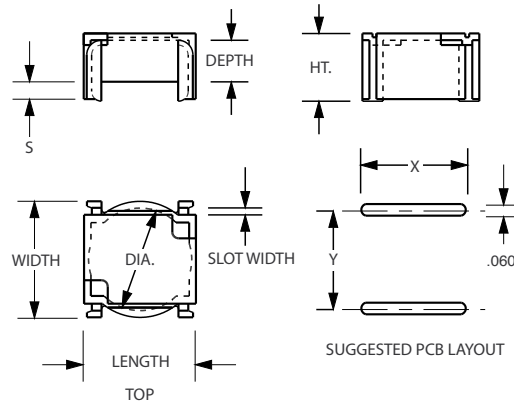


Fits Packaging Tray  
TY74x77-C

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	SLOT	X	Y	Recommended Wire Size
STM37HC-02	.600 [15.2]	.585 [14.8]	.320 [8.1]	.500 [12.7]	.240 [6.1]	.045 [1.1]	.440 [11.2]	.500 [12.7]	#22 AWG (.026) to #18 AWG (.041)

## STM44LC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.



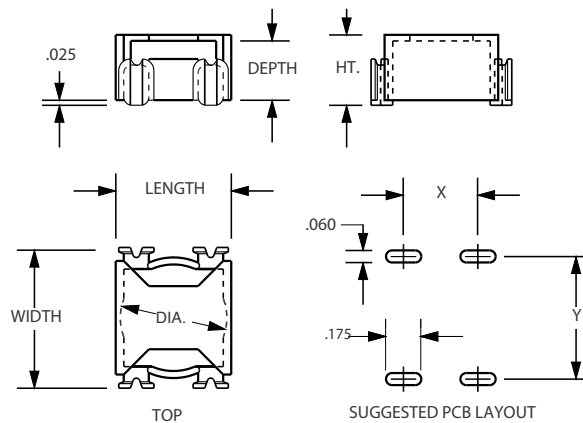
Fits Packaging Tray  
TY74x77-C

±.010 inches  
[mm] [Not to Scale]

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	S	SLOT	X	Y	Recommended Wire Size
STM44LC-02	.575 [14.60]	.600 [15.24]	.350 [8.89]	.530 [13.46]	.210 [5.33]	.100 [2.54]	.036 [0.91]	.550 [13.97]	.510 [12.95]	#30 (.011) to #20 (.034)

## STM44LCC-04

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current coupled inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

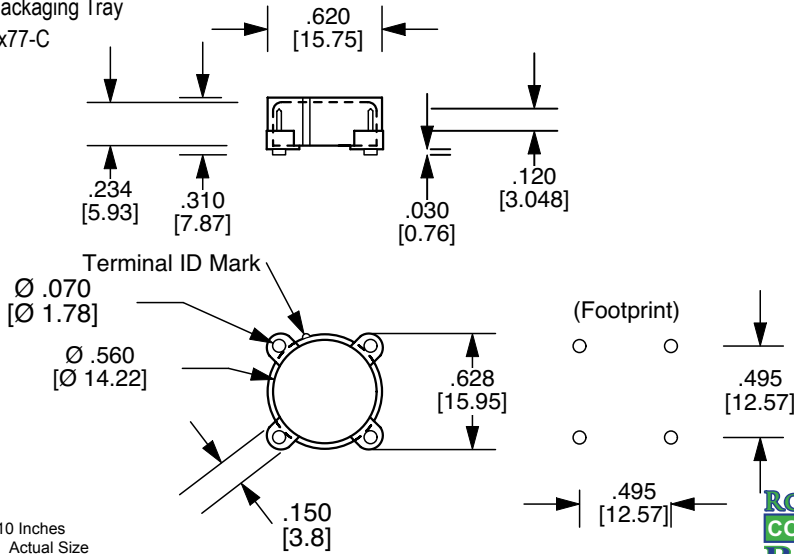


Fits Packaging Tray  
TY74x77-C

±.010 inches  
[mm] [Not to Scale]

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	X	Y	Recommended Wire Size
STM44LCC-04	.575 [14.60]	.700 [17.78]	.350 [8.89]	.530 [13.46]	.295 [7.49]	.370 [9.39]	.610 [15.49]	# 32 (.009) to # 20 (.034) AWG

Fits Packaging Tray  
TY74x77-C



+/- .010 Inches  
(mm), Actual Size

## STM560-4

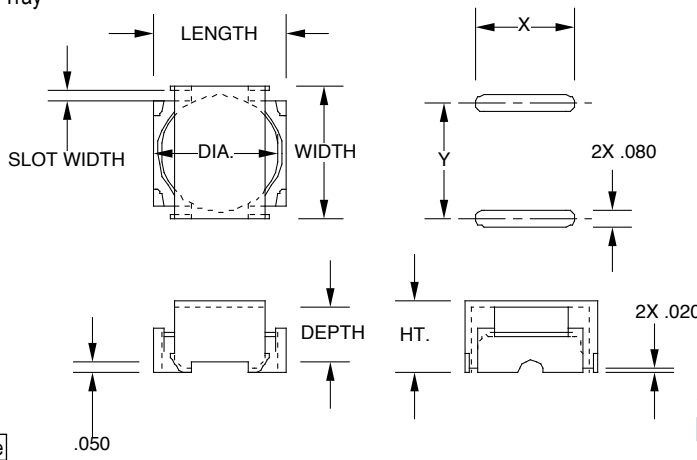
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass - Nickel Flash  
 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For low profile surface mounting of wound toroids up to .560 inches in diameter. "Lunar Lander" design improves coplanarity and terminal durability. Ideal for pick and place.

Made in our China factory

Fits Packaging Tray  
TY74x77-C



± .010 inches  
[mm] Not to Scale

## STM44HC-02

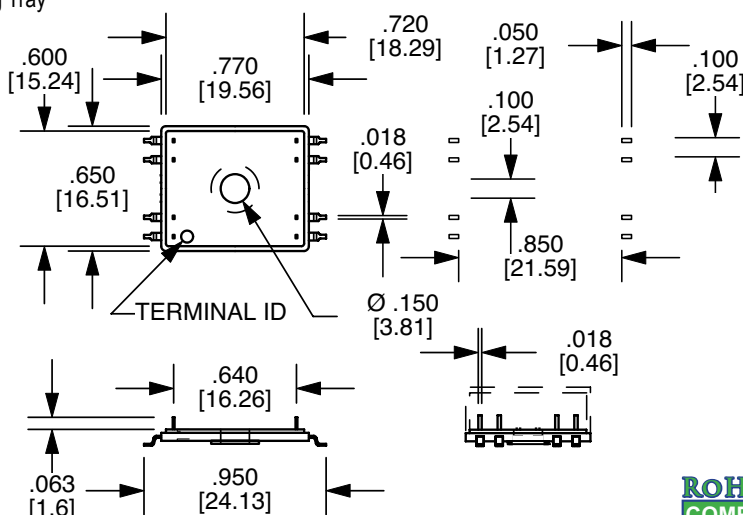
**Material:** PPS (Black)  
**Rating:** UL 94-VO

**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags  
 Optional PVC packaging trays on page 47.

**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	SLOT	X	Y	Recommended Wire Size
STM44HC-02	.650 [16.5]	.650 [16.5]	.360 [9.1]	.580 [14.7]	.280 [7.1]	.045 [1.1]	.490 [12.4]	.570 [14.5]	#22 (.027) to #18 (.042) AWG

Fits Packaging Tray  
TY85x116-C



+/- .010 Inches  
(mm), Actual Size

## STM582-8

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze  
 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

**Package Tray:** TY85X116-A (50tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For surface mounting of components, pot cores and wound toroids up to .580 inches in diameter. Potting cup PC581 may be used to encapsulate the component. (Page 18)

Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays



## Surface Mount Toroid Mounts Matching Anti-Static Parts Trays

Surface Mount

Horizontal

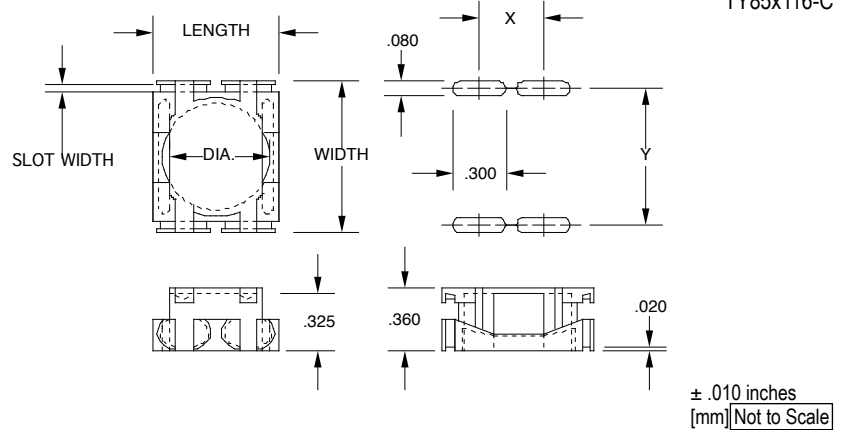
Vertical

Trays

### STM44HCC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags.  
 Optional PVC packaging trays on page 47.

**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

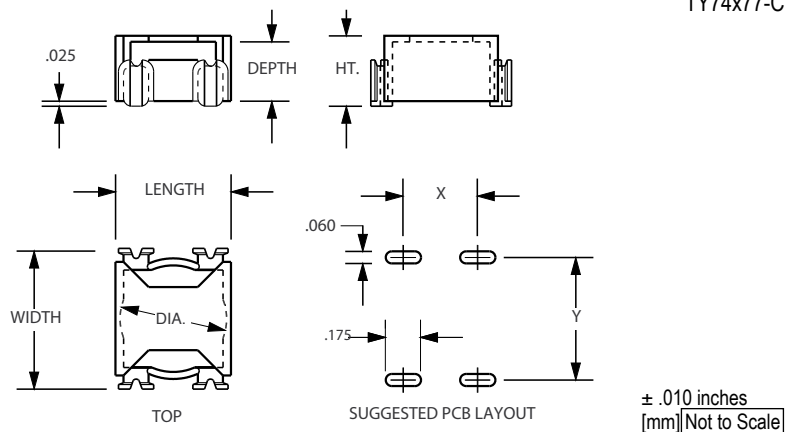


PART NO.	LENGTH	WIDTH	DIA.	X	Y	Slot Width	Recommended Wire Size
STM44HCC-04	.700 [17.7]	.850 [21.6]	.600 [15.2]	.360 [9.1]	.770 [19.6]	.045 [1.0]	#22 AWG (.026) to #18 AWG (.041)

### STM50LCC-04

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags.  
 Optional PVC packaging trays on page 47

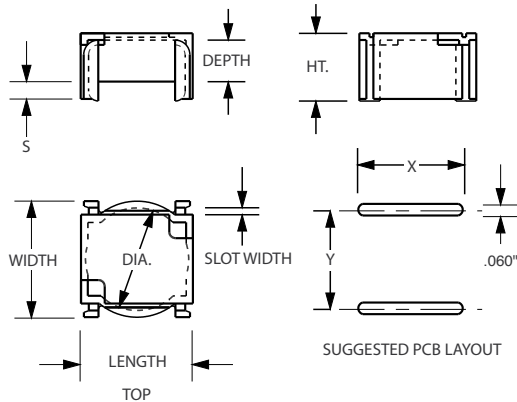
**Application:** For self leading surface mount low current coupled inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.



PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	X	Y	Recommended Wire Size
STM50LCC-04	.650 [16.51]	.750 [19.05]	.350 [8.89]	.605 [15.36]	.295 [7.49]	.445 [11.30]	.660 [16.76]	# 32 (.009) to # 20 (.034) AWG.



Fits Packaging Tray  
TY74x77-C



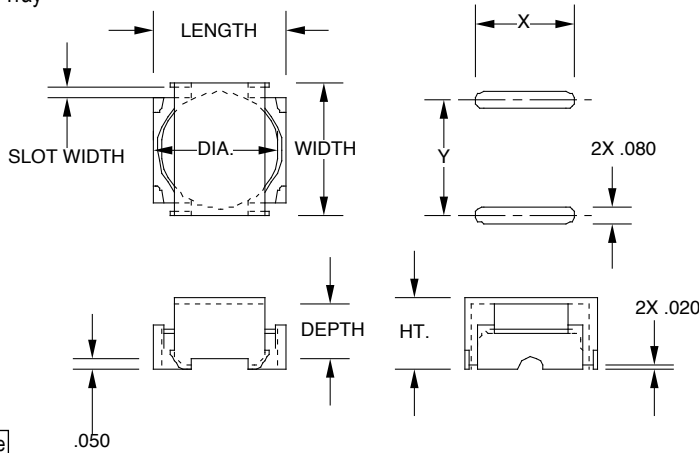
± .010 inches  
[mm] Not to Scale

### STM50LC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags. Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	S	SLOT	X	Y	Recommended Wire Size
STM50LC-02	.650 [16.51]	.680 [17.27]	.350 [8.89]	.610 [15.49]	.210 [5.33]	.100 [2.54]	.036 [0.91]	.620 [15.74]	.590 [14.98]	#30 (.011) to #20 (.034)

Fits Packaging Tray  
TY74x77-C



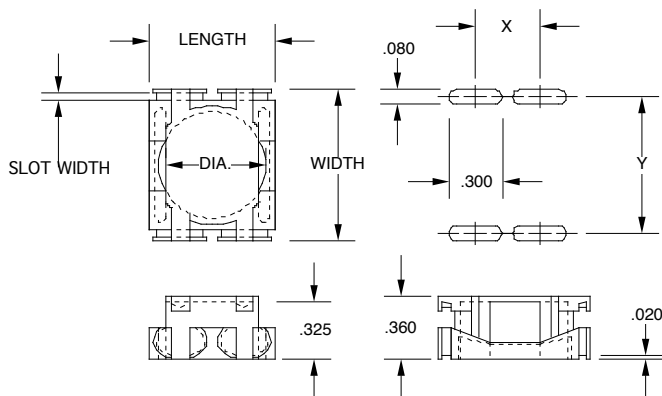
± .010 inches  
[mm] Not to Scale

### STM50HC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags. Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	SLOT	X	Y	Recommended Wire Size
STM50HC-02	.720 [18.3]	.720 [18.3]	.360 [9.1]	.650 [16.4]	.280 [7.1]	.045 [1.1]	.560 [14.2]	.640 [16.2]	#22 (.027) to #18 AWG (.042)

Fits Packaging Tray  
TY85x116-C



± .010 inches  
[mm] Not to Scale

### STM50HCC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags. Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

PART NO.	LENGTH	WIDTH	DIA.	X	Y	Slot Width	Recommended Wire Size
STM50HCC-04	.780 [19.8]	.895 [22.7]	.680 [17.3]	.440 [11.2]	.810 [20.6]	.045 [1.0]	#22 AWG (.027) to #18 AWG (.042)

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

Vertical

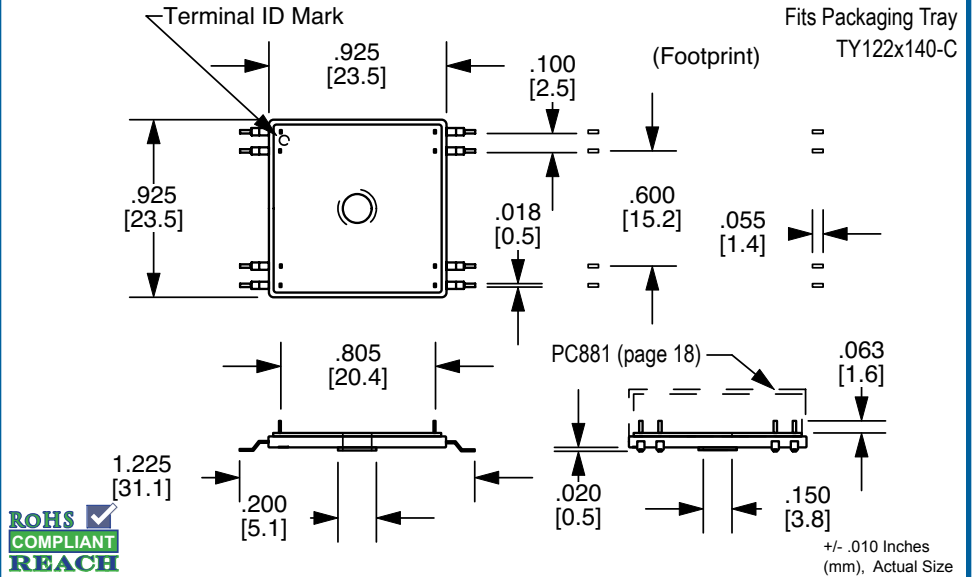
Trays

## STM881-8

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze  
 100% Tin Plate  
**Solderability:** MIL-STD-202  
 Method 208

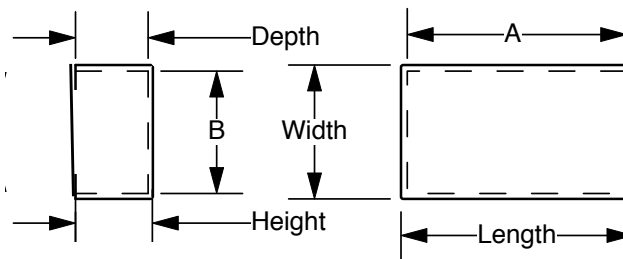
**Package Tray:** TY122X140-B (35/tray)  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For surface mounting of components, pot cores and wound toroids up to .900 inches in diameter. Potting cup PC880 may be used to encapsulate the component. (Page 18)  
 Made in our China Factory



## POTTING CUPS & COVERS

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**Package Method:** Bulk in Poly Bags  
**Application:** For potting and sealing toroid and components on surface mount devices. Cup part number (PC) matches mount part number (STM).



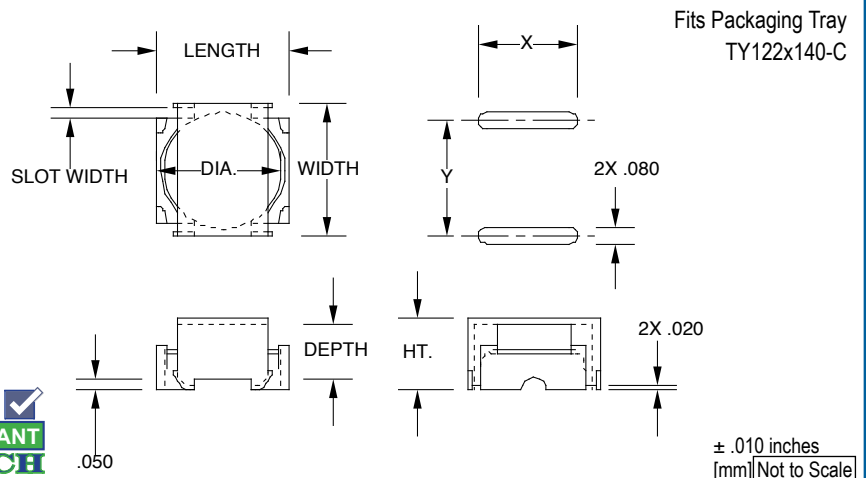
± .010 inches [mm] Not to Scale

Cup part No.	Mount No.	Page No.	Length	Width	Height	Depth	Mat'l
PC166	SMD166-6	7	.300 [7.6]	.265 [6.7]	.170 [4.3]	.150 [3.8]	DAP
PC280	STM280-8	8	.400 [10.2]	.400 [10.2]	.210 [5.3]	.190 [4.8]	DAP
PC390	STM390-8	11	.525 [13.3]	.475 [12.1]	.280 [7.1]	.250 [6.3]	DAP
PC581	STM581-8	15	.770 [19.6]	.650 [16.5]	.280 [7.1]	.250 [6.3]	DAP
PC881	STM881-8	18	.925 [23.4]	.925 [23.4]	.365 [9.3]	.335 [8.5]	DAP

## STM68HC-02-PPS

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**2 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags.  
 Optional PVC packaging trays on page 47.

**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

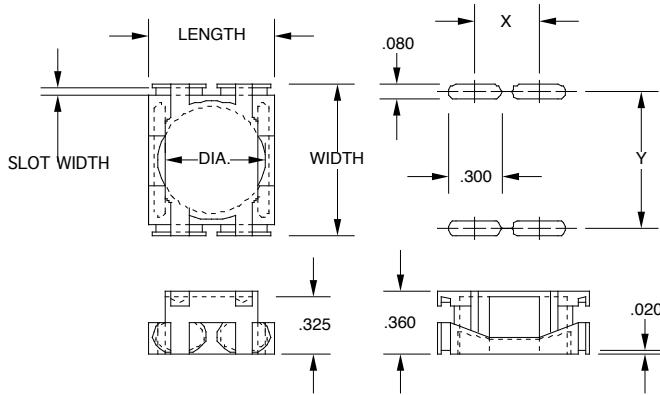


PART NO.	LENGTH	WIDTH	HT.	DIA.	DEPTH	SLOT	X	Y	Recommended Wire Size
STM68HC-02	.920 [23.4]	.920 [23.4]	.355 [9.0]	.840 [21.3]	.275 [7.0]	.055 [1.4]	.700 [17.8]	.830 [21.1]	#20 AWG (.034) to #16 AWG (.052)



## Surface Mount Toroid Mounts Matching Anti-Static Parts Trays

Fits Packaging Tray  
TY122x140-C



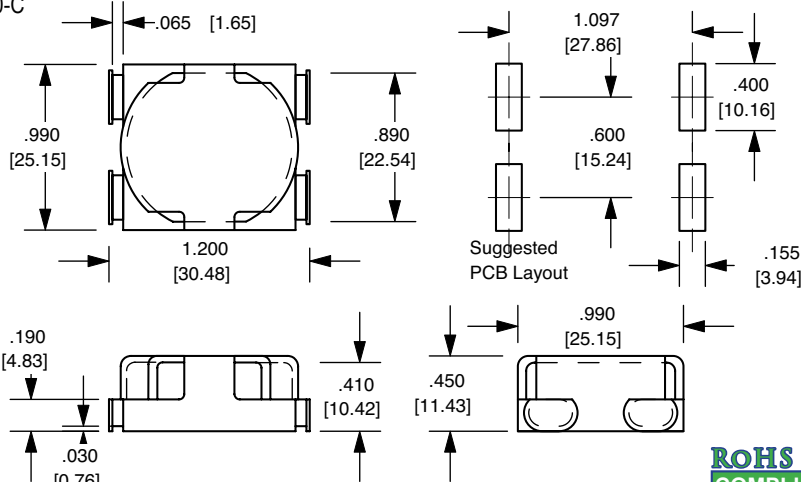
± .010 inches  
[mm] Not to Scale

PART NO.	LENGTH	WIDTH	DIA.	X	Y	Slot Width	Recommended Wire Size
STM68HCC-04	.980 [24.9]	1.090 [27.7]	.880 [22.3]	.620 [15.7]	1.010 [25.6]	.055 [1.4]	#20 AWG (.034) to #16 AWG (.052)

### STM68HCC-02

**Material:** PPS (Black)  
**Rating:** UL 94-VO  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags. Optional PVC packaging trays on page 47.  
**Application:** For self leading surface mount low current inductors and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case. This product is the patented concept of Pulse Engineering Inc.

Fits Packaging Tray  
TY122x140-C



± .010 inches  
[mm] Not to Scale

PART NO.	LENGTH	WIDTH	DIA.	X	Y	Slot Width	Recommended Wire Size
STM80HCC-04	1.200 [30.48]	1.090 [27.7]	.880 [22.3]	.620 [15.7]	1.010 [25.6]	.055 [1.4]	#20 AWG (.034) to #16 AWG (.052)

### STM80HCC-04

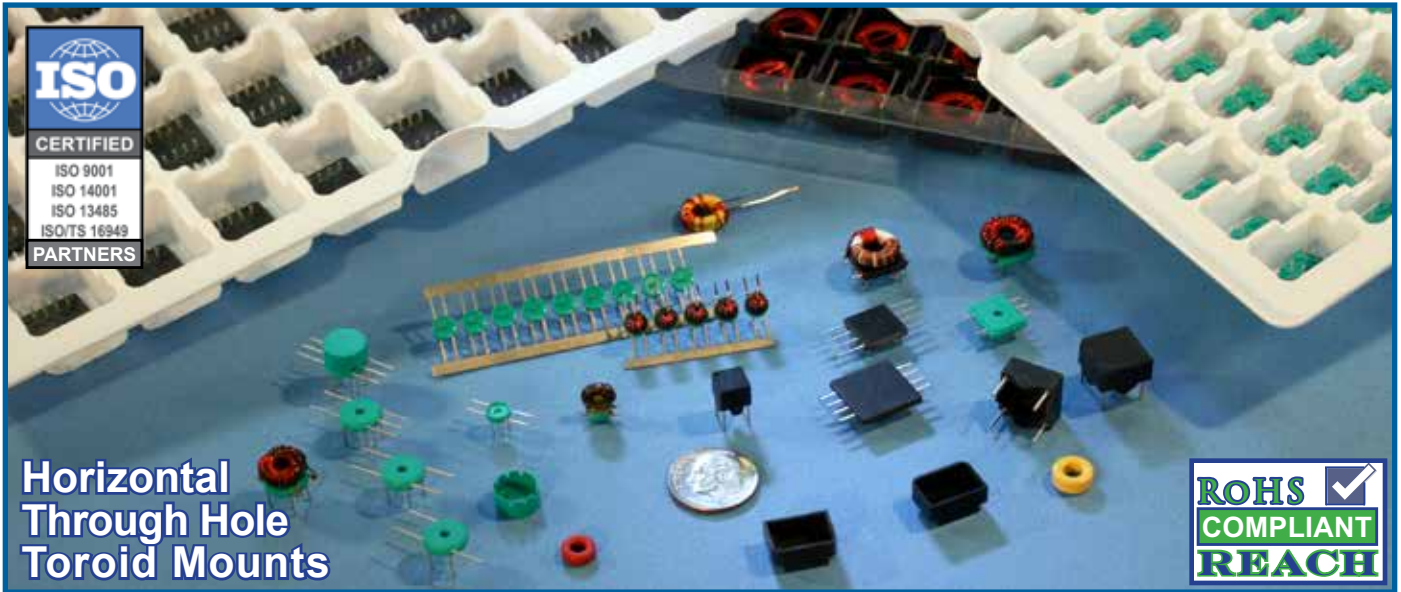
**Material:** PPS (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Poly Bags PVC packaging trays on page 47.  
**Application:** For self leading of surface mount high current coupled inductors and transformers using wound toroids up to .890 inches in diameter. The toroid's winding leads are used to make the surface mount connection to the PCB. #20 AWG (.034) to #16 AWG (.052). This "Bigfoot" concept is the patented property of Pulse Engineering.

Surface Mount

Horizontal

Vertical

Trays



## Horizontal Through Hole Toroid Mounts



Surface Mount

Horizontal

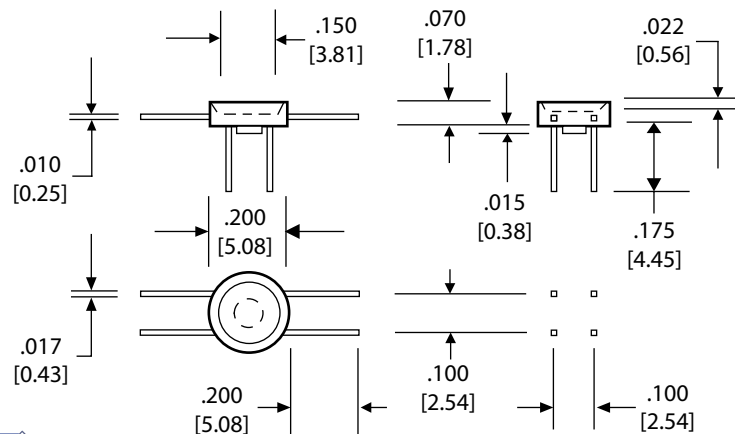
Vertical

Trays

### TM200-4

**Material:** DAP4 (Green)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Alloy 42 Lead Frame  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Package Method:** Styrofoam Trays  
**Application:** For horizontal mounting of toroids with wound diameters from .050 to .180 inches.

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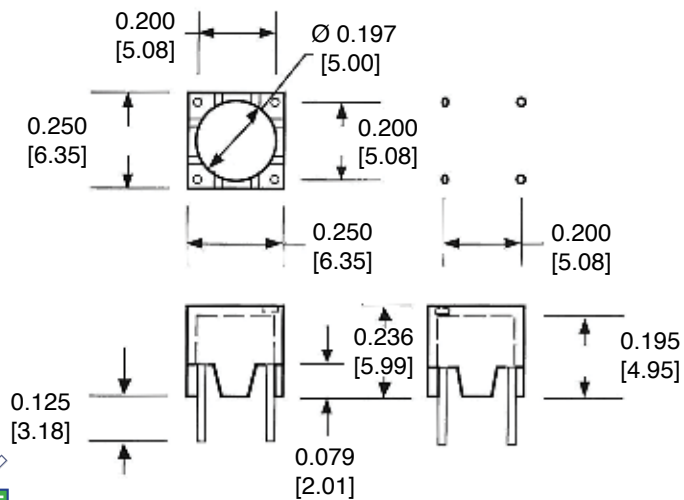


+/- .010 Inches  
(mm) 2 x Size

### TM251-4

**Material:** DAP4 (Green)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Copper Wire  
 .020 Diameter (.5mm) 100% Tin Plate  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For encapsulating components and wound toroids up to .195 inches in diameter. Ideal for automatic pick and place.

Made in our China Factory

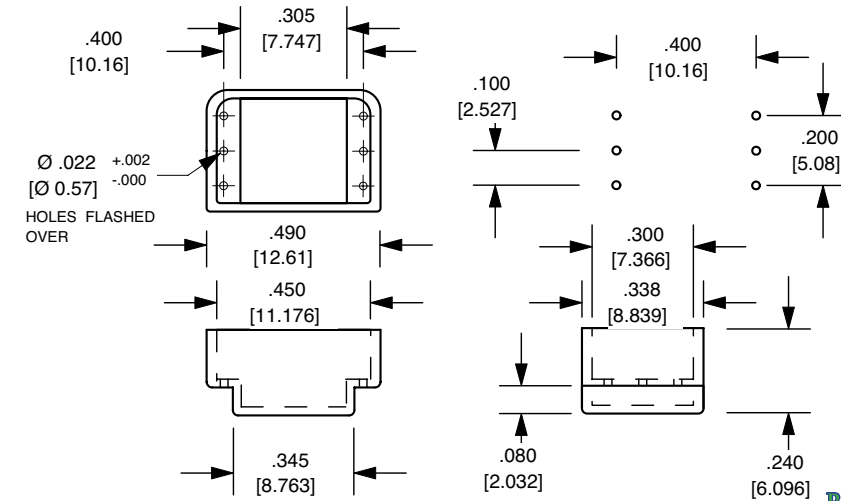


+/- .010 Inches  
(mm) 2 x Size

## TM305-06

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Self Terminating  
 Flashed over holes .022 in diameter.  
**Package Method:** Bulk in Poly Bags.  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** Widely used "T" case or potting cup for mounting components and wound toroids up to .300 in diameter.

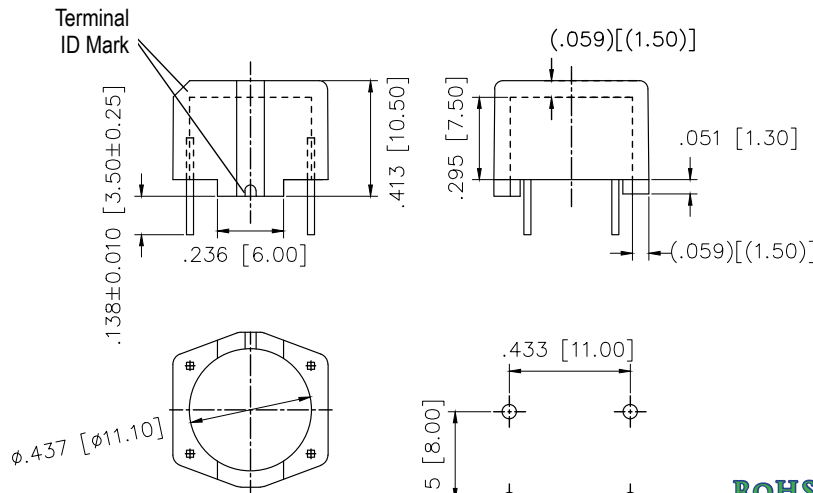
Made in our China Factory



+/- .010 Inches (mm) 2 x Size

## HTC315-4

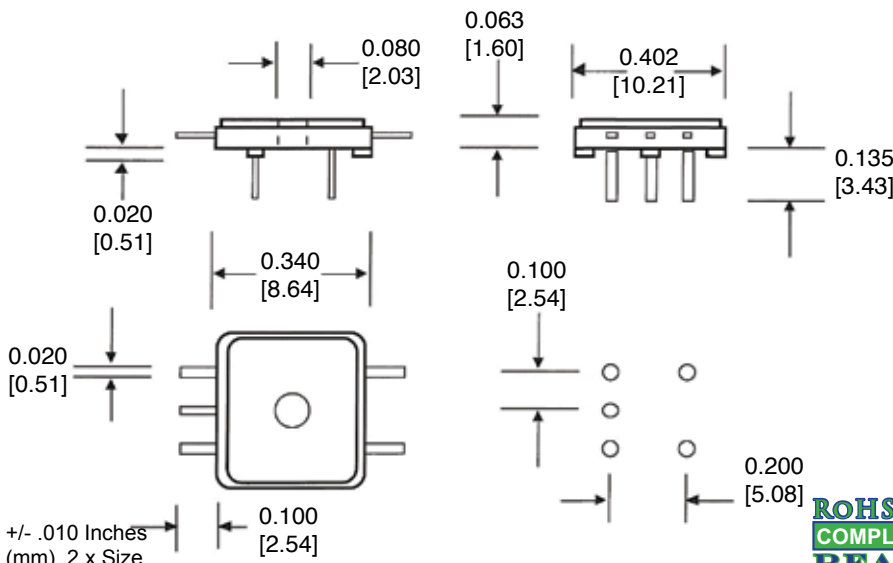
**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For enclosed horizontal mounting of wound toroids up to .400 inches in diameter.



+/- .010 Inches (mm) 2 x Size

## TM381-5

**Molding:** DAP4 (Green)  
**UL Rating:** UL94-VO, Class F  
**5 Terminals:** Phosphorous Bronze  
 Lead-Frame  
 100 %Tin Plated  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags.  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For horizontal mounting of components and wound toroids up to .380 inches in diameter.



+/- .010 Inches (mm) 2 x Size

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

Vertical

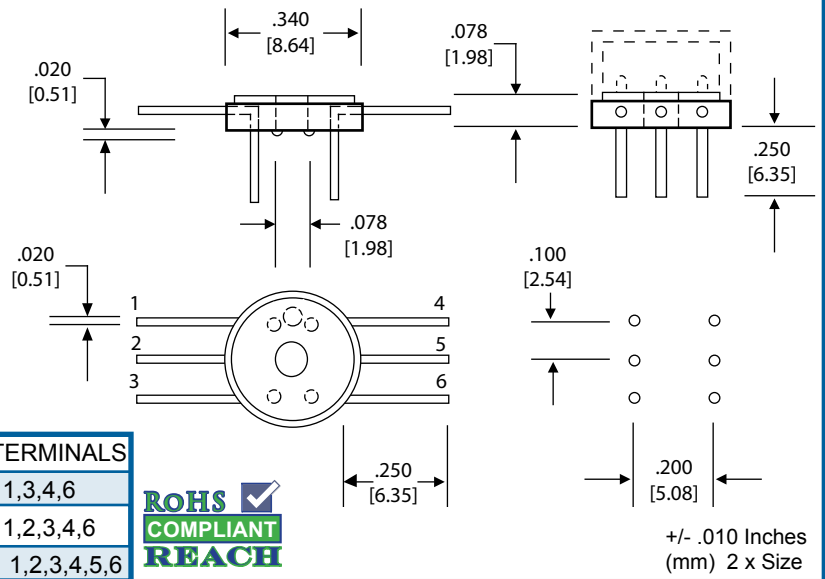
Trays

## TM401 SERIES

**Material:** DAP4 (Green)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** Brass, Nickel Flash  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging tray  
 options on page 47.  
**Application:** This series is suitable for  
 components and wound toroids up to  
 .340 inches in diameter. Potting cup  
 PC401 is available for encapsulation.  
 See below. (sold separately).

Made in our China Factory

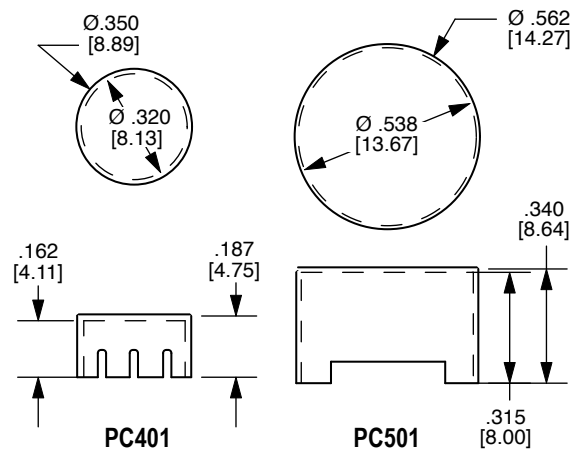
PART NO.	TERMINALS
TM401-4	1,3,4,6
TM401-5	1,2,3,4,6
TM401-6	1,2,3,4,5,6



## CUPS

**Material:** DAP4 (Green)  
**UL Rating:** UL94-VO, Class F  
**Package Method:** Bulk in Poly Bags

**Application:** For potting and sealing  
 toroids and components on the TM401  
 (Page 22), VTM421 (Page 32) and  
 TM501 (Page 25) toroid mounts. The  
 cups protect the component and their  
 connections, and facilitate part number  
 marking. All cups are sold separately.



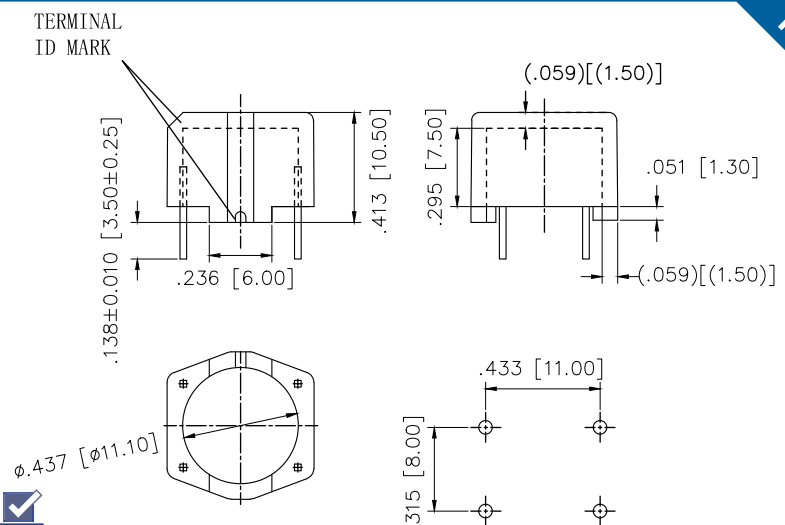
+/- .010 Inches  
(mm) 2 x Size

## HTC433-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
**Solderability:** Per MIL-STD-202  
 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays  
 options on page 47.

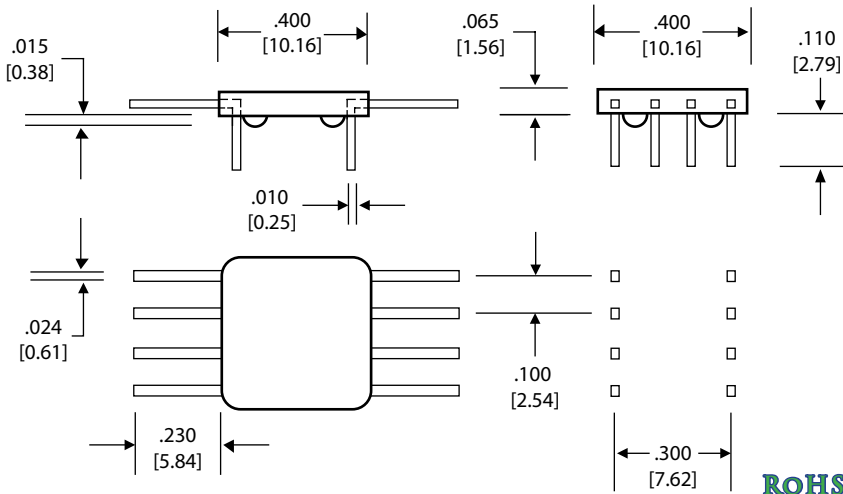
**Application:** For enclosed horizontal  
 mounting of wound toroids up to .430  
 inches in diameter.



± .010 inches  
(mm) [Not to Scale]

NEW

### TM411-8



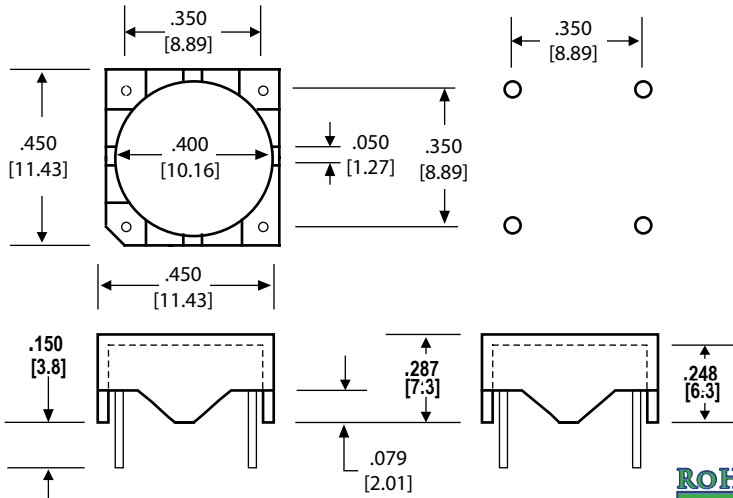
+/- .010 Inches  
(mm) 2 x Size



**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorous Bronze  
 .024 (.6mm) x .010 (.25mm) 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Tray:** TY65x100-B (75/tray)  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For horizontal mounting of components and wound toroids up to .400 inches in diameter.

Made in our China Factory

### TM507-4



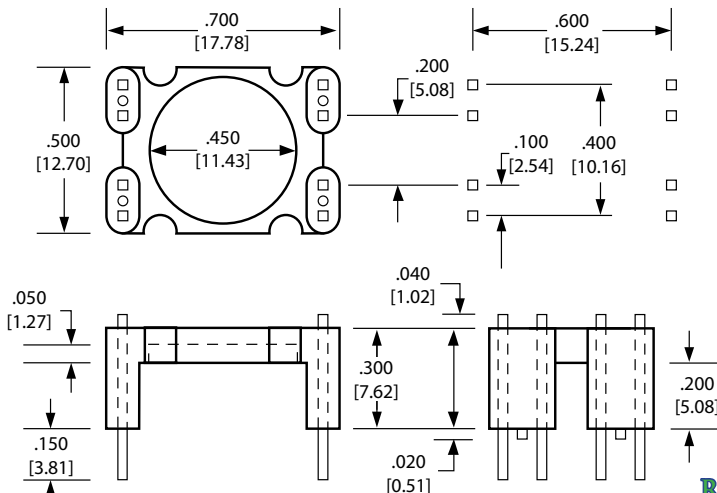
+/- .010 Inches  
(mm) 2 x Size



**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass Wire  
 .025 (.63mm) Dia. 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For enclosed horizontal mounting of wound toroids up to .400 inches in diameter.

Made in our China Factory

### TM450-6



+/- .010 Inches  
(mm) 2 x Size



**Material:** PET (Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Phosphorus Bronze  
 .025 (.63mm) Sq. 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For low profile horizontal mounting of wound toroids under the platform up to .450 inches in diameter. Ideal for transformer applications.

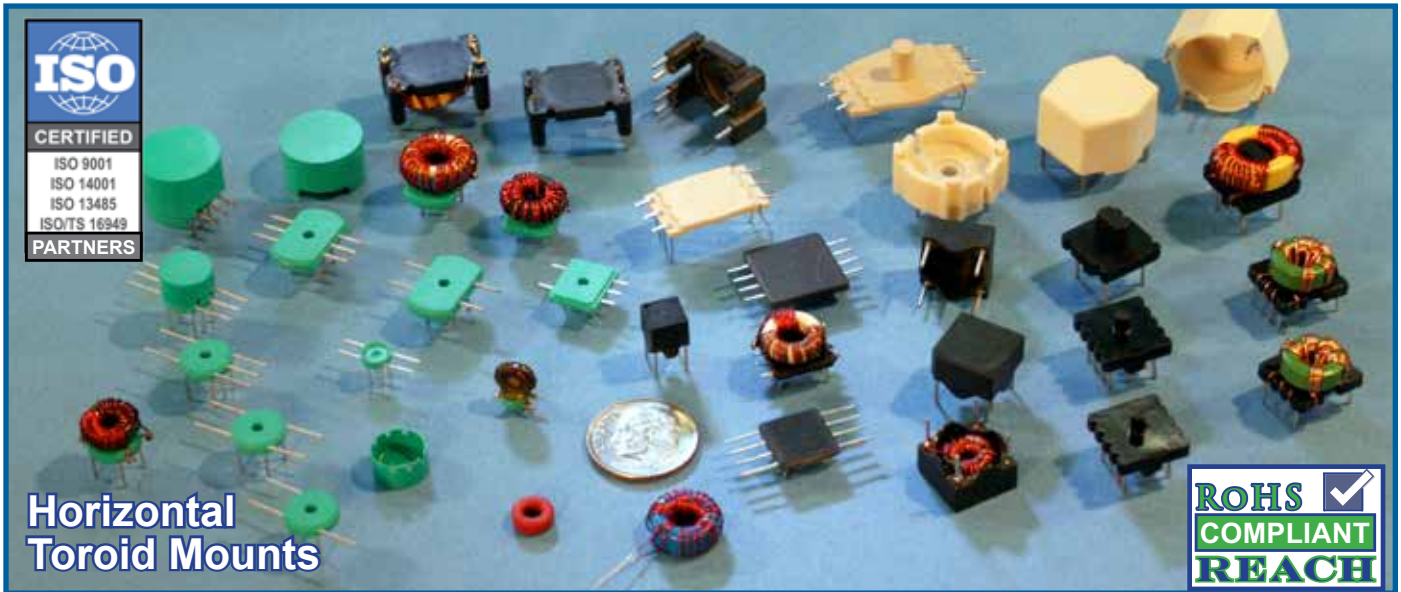
Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays



## Horizontal Toroid Mounts

Surface Mount

Horizontal

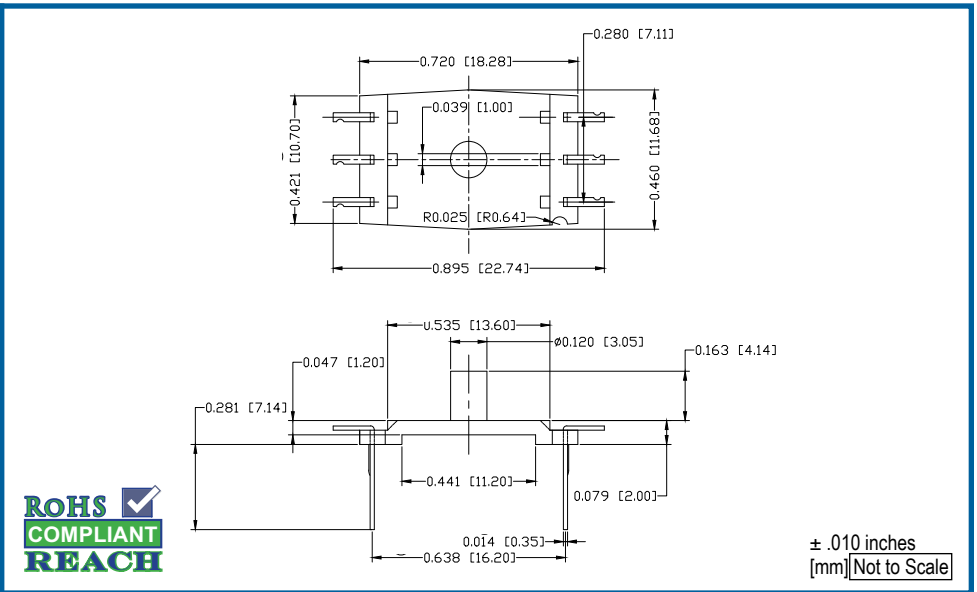
Vertical

Trays

**HTM461-6**

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Brass Nickel Flash  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Polybags  
**Application:** Low profile horizontal  
 mounting of wound toroids up to .460  
 inches in diameter. Each size is avail-  
 able without a center post. MOQs apply.

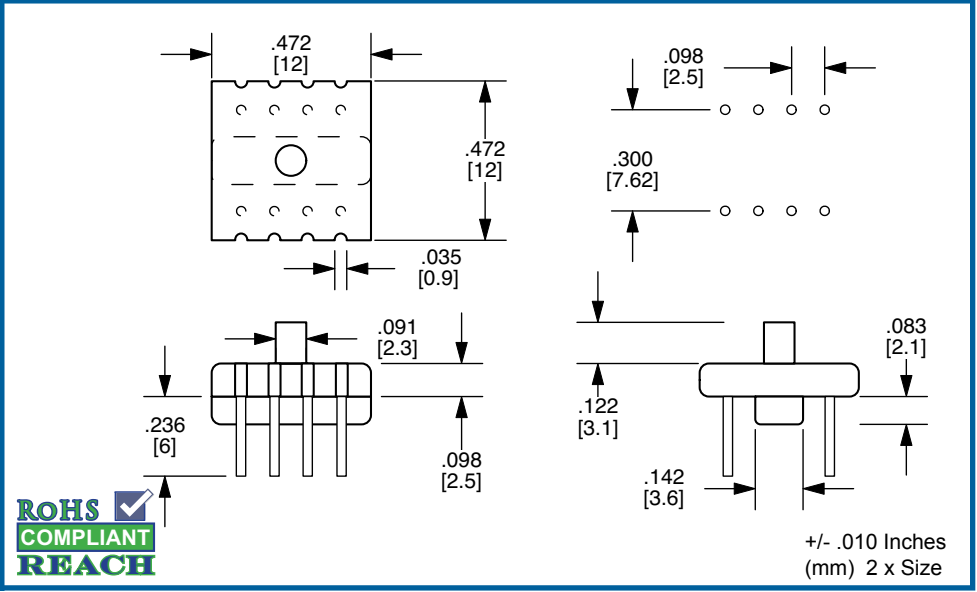
Made in our China Factory



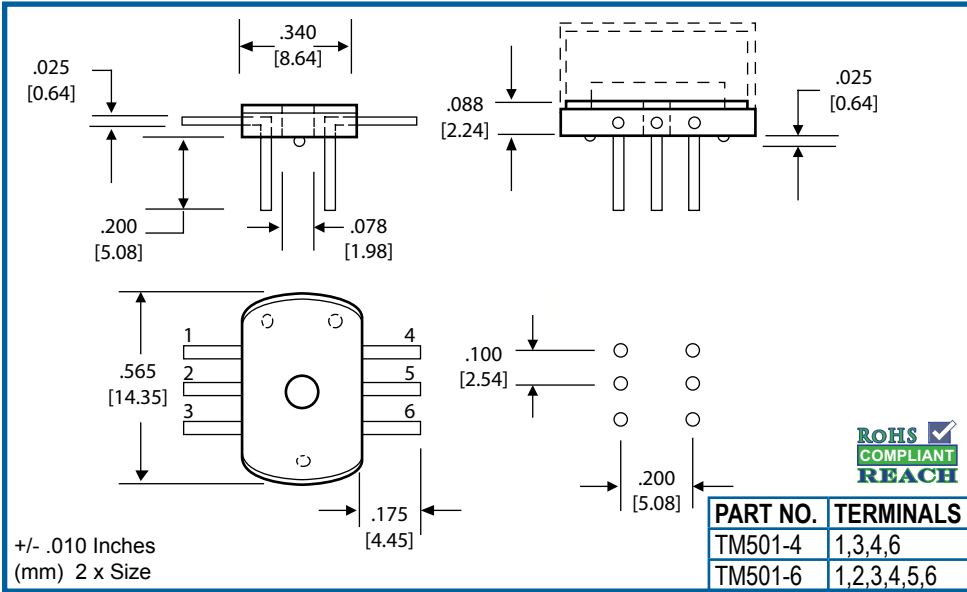
**TM475-8**

**Material:** PH3 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** .028 [7mm] CP Wire  
 100% Tin Plate  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays  
 options on page 47.  
**Application:** For horizontal mounting  
 of transformer and inductor applications  
 using a wound toroid up to .475 inches in  
 diameter.

Made in our China Factory







**TM501-4** **TM501-6**

**Material:** DAP4 (Green)

**UL Rating:** UL94-VO, Class F

**Terminals:** Brass, Nickel Flash  
100% Tin Plated

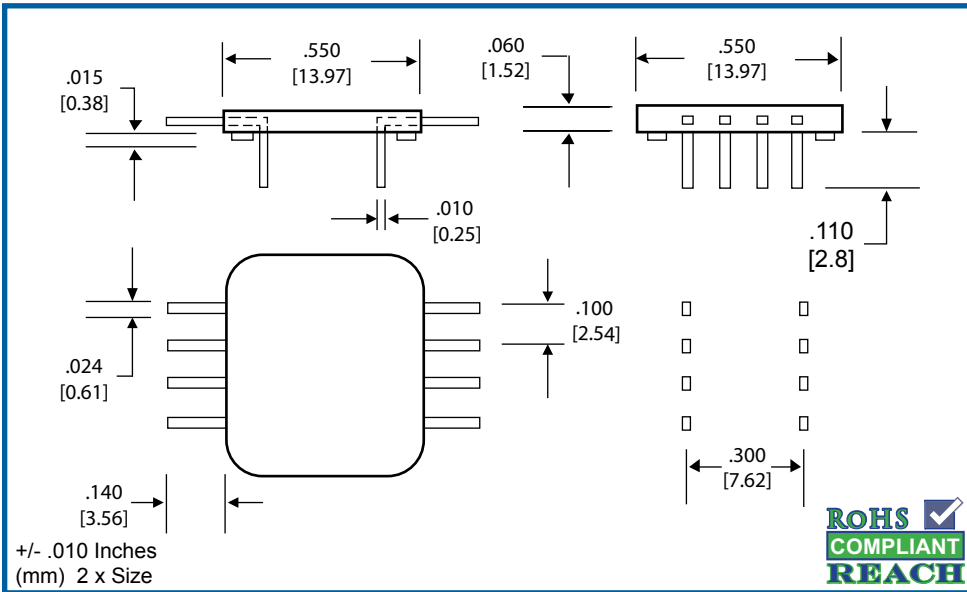
**Solderability:** Per MIL-STD-202  
Method 208

**Package Method:** Bulk in Poly Bags  
See RoHS compliant PET packaging trays  
options on page 47.

**Application:** This series is suitable for  
components and wound toroids up to  
.550 inches. Potting cup PC501 is avail-  
able for encapsulation (sold separately).  
See page 18.

**ROHS COMPLIANT REACH**

+/- .010 Inches  
(mm) 2 x Size



**TM551-8**

**Material:** DAP4 (Black)

**UL Rating:** UL94-VO, Class F

**8 Terminals:** Phosphorus Bronze  
.020 (.51mm) x .010 (.25mm). 100% Tin Plate.

**Solderability:** Per MIL-STD-202  
Method 208

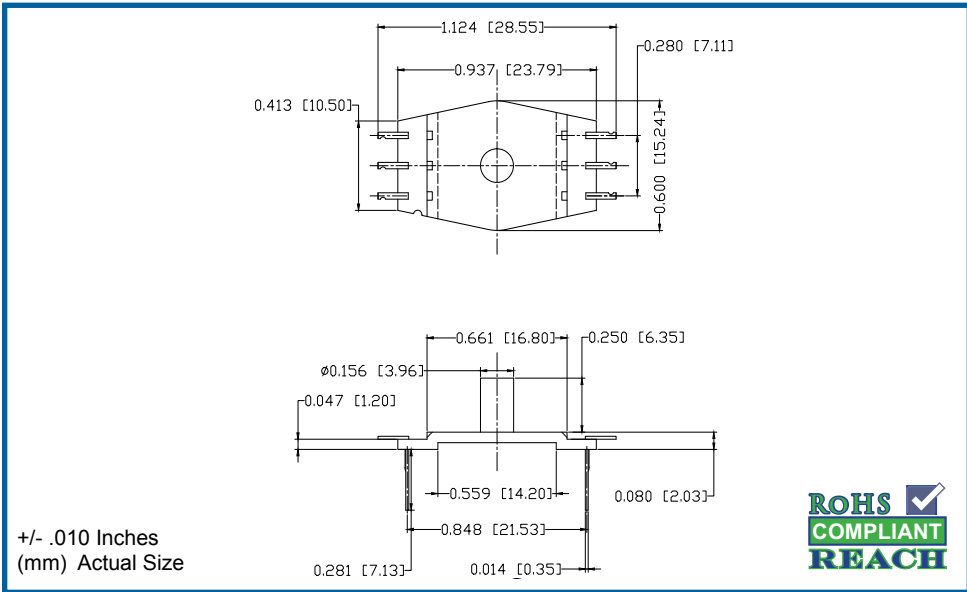
**Package Method:** Bulk in Poly Bags  
See RoHS compliant PET packaging trays  
options on page 47.

**Application:** For horizontal mounting  
of components and wound toroids up to  
.550 inches in diameter.

**ROHS COMPLIANT REACH**

Made in our China Factory

+/- .010 Inches  
(mm) 2 x Size



**HTM601-6**

**Material:** GFN (Natural)

**UL Rating:** UL94-VO, Class F

**6 Terminals:** Brass Nickel Flash  
100% Tin Plated

**Solderability:** Per MIL-STD-202  
Method 208

**Package Method:** Bulk in Polybags

**Application:** Low profile horizontal  
mounting of wound toroids from .400 to  
.850 inches in diameter. Each size is  
available without a center post. MOQs  
apply.

**ROHS COMPLIANT REACH**

Made in our China Factory

+/- .010 Inches  
(mm) Actual Size

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

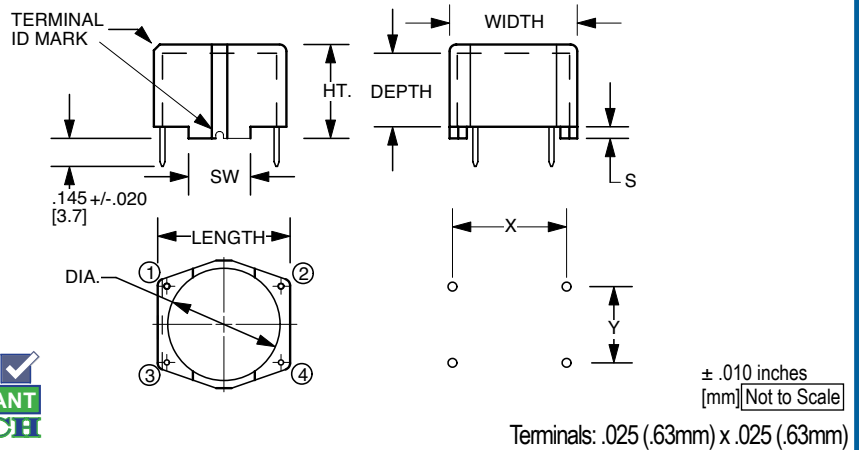
Horizontal

Vertical

Trays

## HTC583-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
 Also Available with No Terminals  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For enclosed horizontal mounting of wound toroids up to .600 inches in diameter.

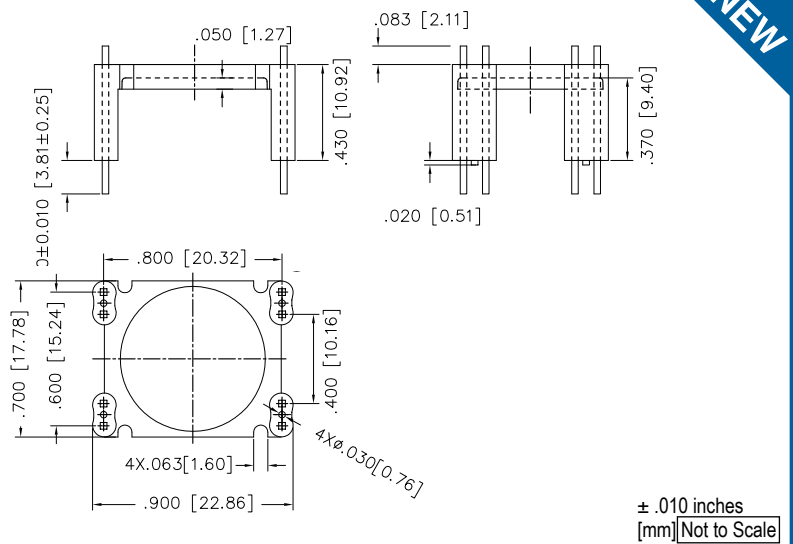


PART NO.	LENGTH	WIDTH	HT.	DEPTH	DIA.	SW	S	X	Y
HTC583-0	.689	.689	.492	.394	.602	.315	.060	.590	.394
HTC583-4	[17.5]	[17.5]	[12.50]	[10.0]	[15.3]	[8.0]	[1.5]	[15.00]	[10.00]

## TM650-8

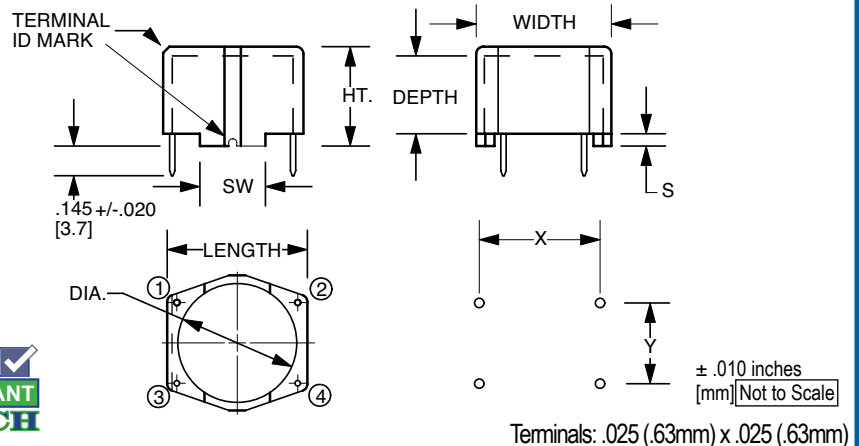
**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze .030 [.76mm] Sq, 100% Tin Plate  
**Solderability:** MIL-STD-202 Method 208  
**Package Method:** Bulk in Polybags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For horizontal mounting of wound toroids under the platform up to .650 inches in diameter.

Made in our China Factory



## HTC764-4

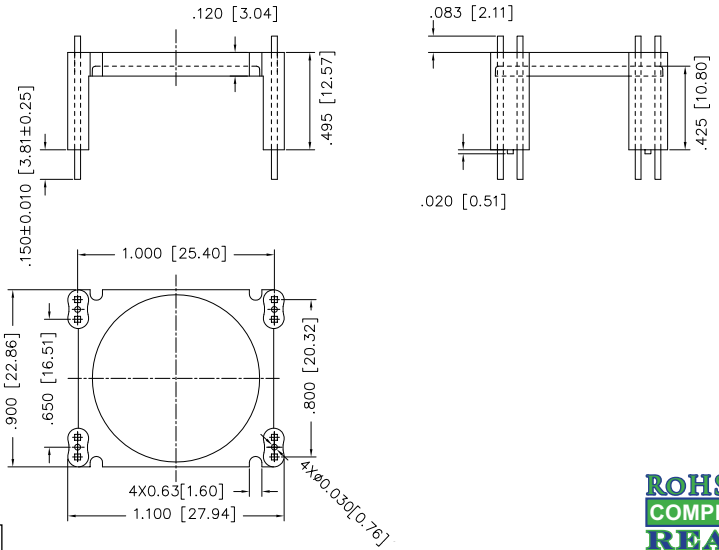
**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For enclosed horizontal mounting of wound toroids up to .810 inches in diameter.



PART NO.	LENGTH	WIDTH	HT.	DEPTH	DIA.	SW	S	X	Y
HTC764-0	.886	.886	.590	.472	.819	.405	.077	.787	.492
HTC764-4	[22.5]	[22.5]	[15.0]	[10.0]	[20.8]	[10.3]	[2.0]	[20.0]	[12.5]



**NEW**



± .010 inches [mm] Not to Scale



### TM850-8

**Material:** DAP4 (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Phosphorus Bronze .030 [.76mm] Sq, 100% Tin Plate  
**Solderability:** MIL-STD-202 Method 208  
**Package Method:** Bulk in Polybags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For horizontal mounting of wound toroids under the platform up to .650 inches in diameter.

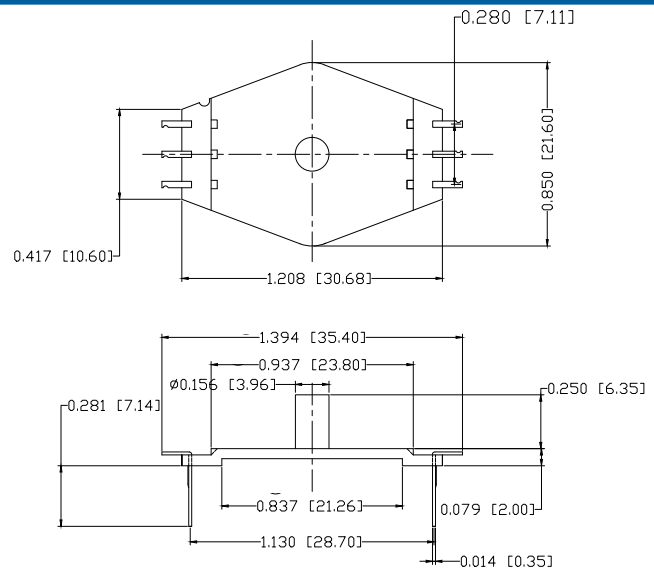
Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays



± .010 inches [mm] Not to Scale



### HTM851-6

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** Brass Nickel Flash 100% Tin Plated  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Polybags  
**Application:** Low profile horizontal mounting of wound toroids from .400 to .850 inches in diameter. Each size is available with or without a center post.

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## Horizontal Through Hole Mounting Solutions

Surface Mount

Horizontal

Vertical

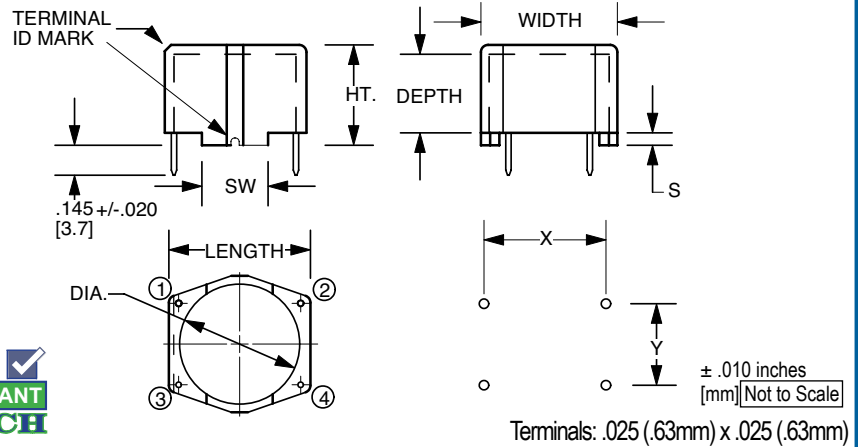
Trays

### HTC965-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
**Solderability:** Per MIL-STD-202 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For enclosed horizontal mounting of wound toroids up to .970 inches in diameter.



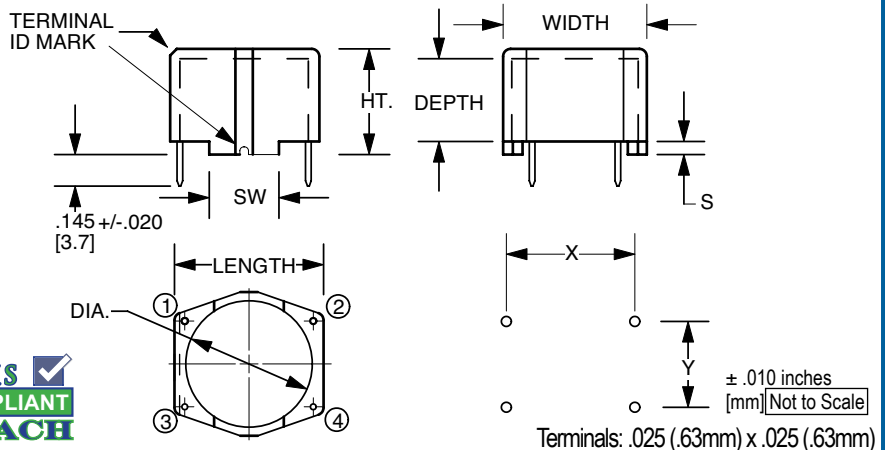
PART NO.	LENGTH	WIDTH	HT.	DEPTH	DIA.	SW	S	X	Y
HTC965-0	1.080	1.080	.690	.550	.972	.472	.098	.984	.590
HTC965-4	[27.5]	[27.5]	[17.5]	[14.0]	[24.7]	[12.0]	[2.5]	[25.00]	[15.00]

### HTC1208-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** CP Wire 100% Tin  
**Solderability:** Per MIL-STD-202 Method 208

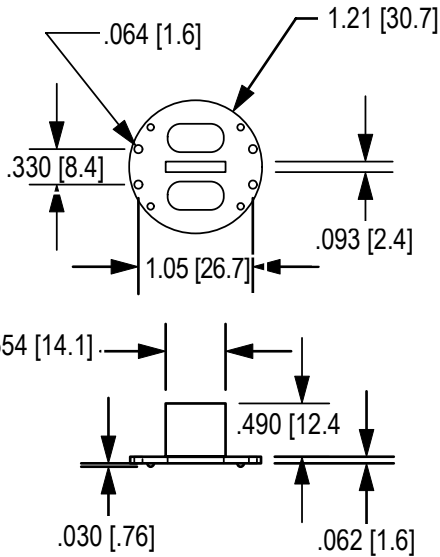
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.

**Application:** For enclosed horizontal mounting of wound toroids up to .1.19 inches in diameter.



PART NO.	LENGTH	WIDTH	HT.	DEPTH	DIA.	SW	S	X	Y
HTC1208-0	1.300	1.300	.787	.695	1.190	.846	.060	1.181	.590
HTC1208-4	[33.0]	[33.0]	[20.0]	[17.65]	[30.23]	[21.5]	[1.52]	[30.00]	[15.00]

## TCM120-04



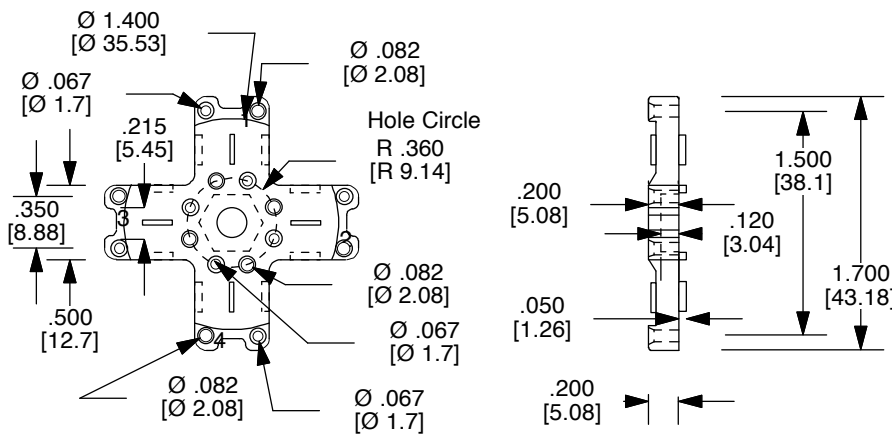
± .010 inches  
[mm] Not to Scale



**Material:** PET (Black)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Self Terminating  
**Package Method:** Bulk in Polybags  
**Application:** For horizontal mounting of toroids utilizing the toroids winding leads to terminate to the PCB. The toroid's leads pass through the holes to be soldered to the PCB. The center post is designed for use in common mode applications where winding separation is important.

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## XM1300-08



± .010 inches  
[mm] Not to Scale

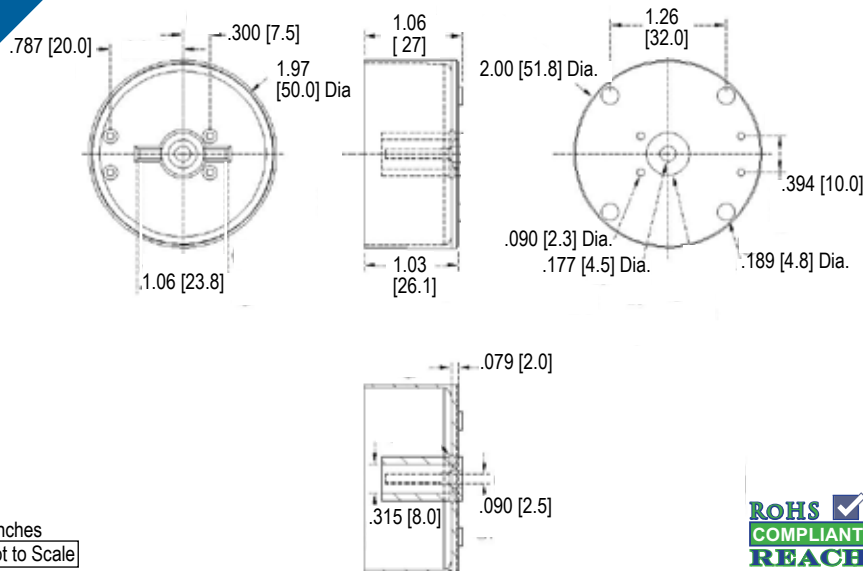


**Material:** PET (Black)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Self Terminating  
**Package Method:** Bulk in Polypaps  
**Application:** The X-Mount is for horizontal mounting of larger toroids up to 1.50 inches in diameter. The .067" (#12AWG) or .082" (#14 AWG) holes facilitate easy assembly and position the toroids winding wire for connection to the PCB.

Nylon Bolt M187 and Nut M185 can be used to hold toroids to the X-mount. (sold separately) The TR toroid retainers (page 30) can also be used to attach the toroid to the X-mount or to the PCB.

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**NEW**



± .010 inches  
[mm] Not to Scale



## HTC1890-04

**Material:** GFN  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Self Terminating

**Package Method:** Bulk in Polybags  
**Application:** Horizontal mounting of wound toroids up to 1.890 inches in diameter for common mode choke applications.

Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays



## Large Toroids Mounting Solutions

Surface Mount

Horizontal

Vertical

Trays

### TR SERIES

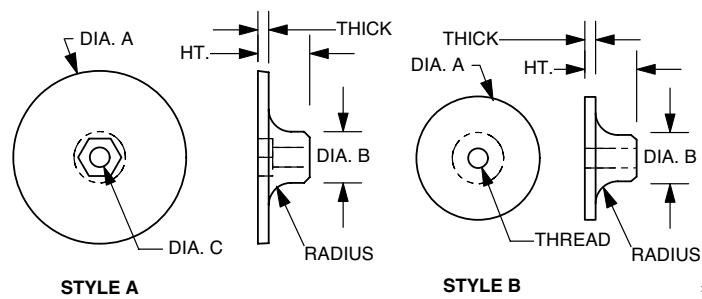
**Materials:** PET (Black)  
Zytel FR50 (Natural)

**UL Rating:** UL94-VO, Class F

**Package Method:** Bulk in Polybags

**Application:** Toroid Retainers are designed to bolt toroids to a PCB, chassis, or to the XM Series (page 29). Series A Toroid Retainers are designed to use a 10-32 bolt and nut, series B are threaded and require a bolt only. (All sold separately).

**M185:** Nylon #10 hex nut  
**M187:** Nylon 10-32 x 1.5 inch bolt  
**M190:** Nylon 6-32 x 1.0 inch bolt



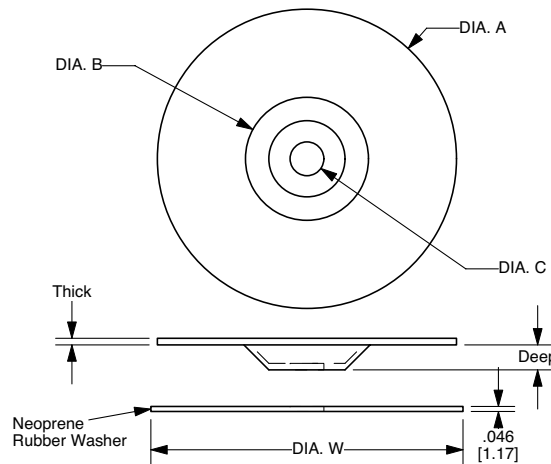
± .010 inches  
[mm] Not to Scale

PART No.	DIA. A	DIA. B	HT.	THICK	RAD.	DIA. C	THREAD	BOLT (& Nut)	MAT'L
TR100-B	1.000	.375	.375	.050	.187	---	10-32	M187	Zytel
TR130-A	1.250	.425	.500	.085	.225	.200	---	M187 & M185	Ryton
TR200-A	1.750	.525	.525	.110	.225	.200	---	M187 & M185	Ryton

### LARGE TR SERIES

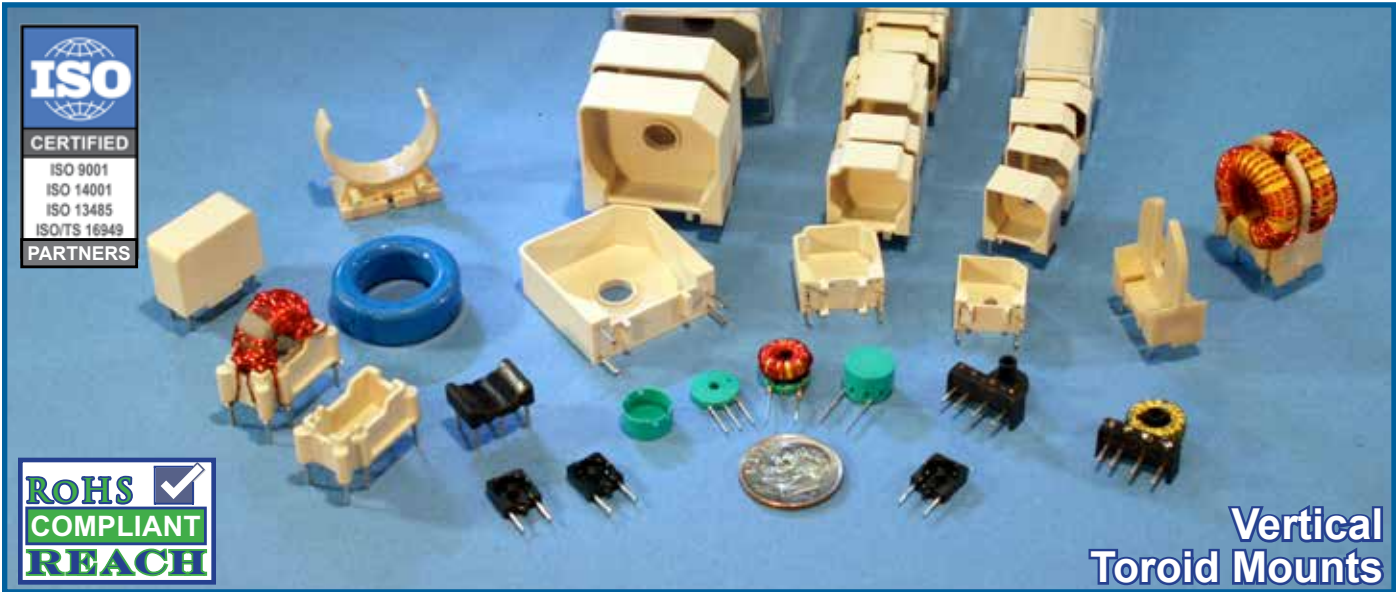
**Material:** Steel  
Electro Zinc Plated

**Application:** The Toroid Retainer series is designed to bolt toroids from 2.0 to 6.0 inches in diameter to a circuit board or assembly chassis. Neoprene Rubber washers are designed to both insulate and protect the toroid from the pressure of the Retainer. Neoprene washers are sold separately. Steel Toroid Retainers are designed to be used with a Stainless Steel 5/16 bolt nut, and washer, sold separately.



± .010 inches  
[mm] Not to Scale

Part No.	Dia. A	Dia. B	Dia. C	Thick	Deep	Mat'l	Rubber Washer	Dia. W	Mat'l
TR275-C	2.75 [69.8]	1.13 [28.7]	.310 [7.8]	.060 [1.5]	.260 [6.6]	Steel	W275-N	2.87 [72.9]	Neo
TR350-C	3.50 [88.9]	1.25 [30.4]	.310 [7.8]	.060 [1.5]	.280 [7.1]	Steel	W350-N	3.68 [93.5]	Neo
TR450-C	4.38 [111.2]	1.38 [35.0]	.310 [7.8]	.080 [2.0]	.300 [7.6]	Steel	W438-N	4.62 [117.3]	Neo

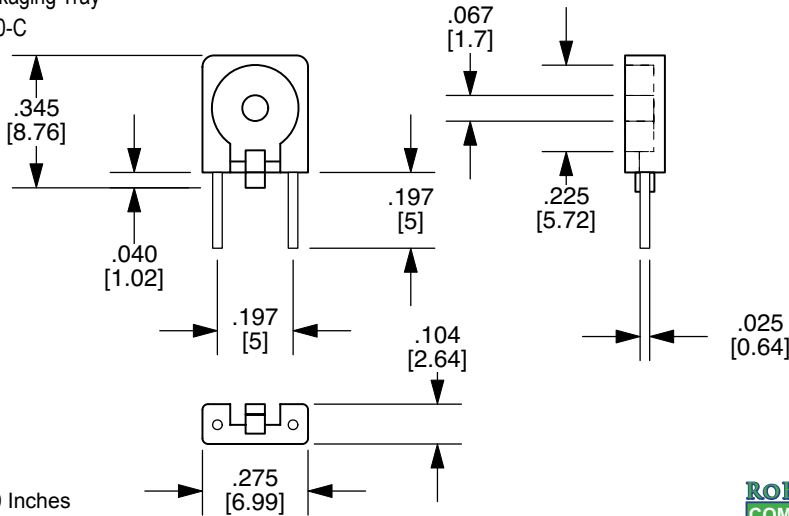


**ISO**  
CERTIFIED  
ISO 9001  
ISO 14001  
ISO 13485  
ISO/TS 16949  
PARTNERS

**ROHS COMPLIANT REACH**

## Vertical Toroid Mounts

Fits Packaging Tray  
TY45x70-C



+/- .010 Inches  
(mm) 2 x Size

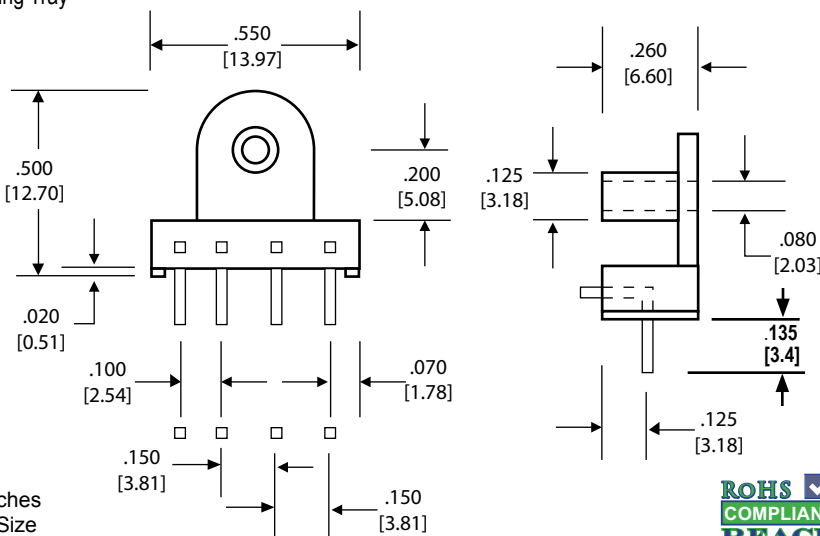
**ROHS COMPLIANT REACH**

### VTM225-2

- Material:** PH3 (Black)
- UL Rating:** UL94-VO, Class F
- 2 Terminals:** Copper Wire  
100% Tin Plated
- Solderability:** Per MIL-STD-202  
Method 208
- Package Method:** Bulk in Polybags  
See RoHS compliant PET packaging trays  
options on page 47.
- Application:** For vertical inductor ap-  
plications using a wound inductor up to  
.225 inches in diameter.

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Fits Packaging Tray  
TY74x77-C



+/- .010 Inches  
(mm) 2 x Size

**ROHS COMPLIANT REACH**

### VTM370-4

- Material:** PET (Black)
- UL Rating:** UL94-VO, Class F
- 4 Terminals:** Phosphorus Bronze  
.025 (.63mm) Sq. 100% Tin Plate.
- Solderability:** Per MIL-STD-202  
Method 208
- Package Method:** Bulk in Polybags  
See RoHS compliant PET packaging trays  
options on page 47.
- Application:** For vertical mounting of  
wound toroids up to .370 inches in  
diameter in transformer and current  
sensing applications.

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Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

Vertical

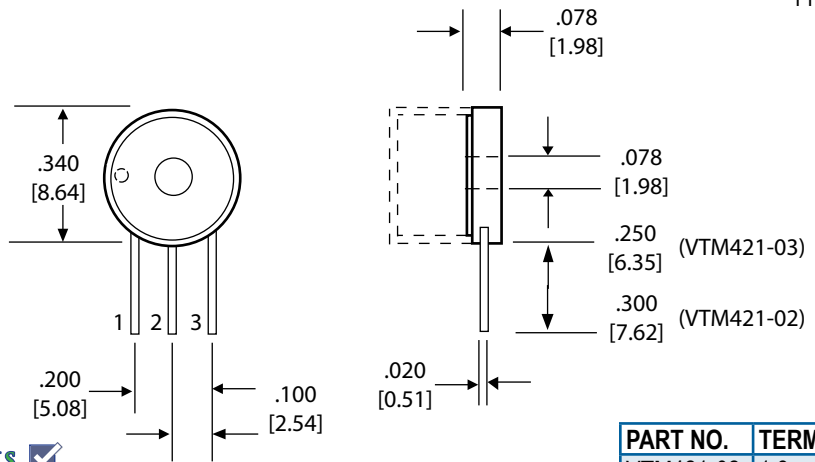
Trays

## VTM421-02 & VTM421-03

**Material:** DAP4(Green)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** Copper Wire  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208

**Package Method:** Bulk in Polybags  
 See RoHS compliant PET packaging trays  
 options on page 47.

**Application:** For vertical mounting of  
 wound toroids up to .340 inches. Potting  
 cup PC401 is available for encapsula-  
 tion of the components on the VTM421  
 series (sold separately). See page 22.



Fits Packaging Tray  
TY45x70-C



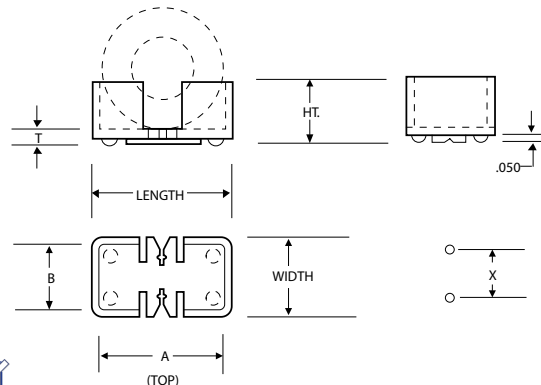
+/- .010 Inches  
(mm) 2 x Size

PART NO.	TERMINALS
VTM421-02	1,3
VTM421-03	1,2,3

## KM44-01 KM44-02

**Material:** GFN8 (Black)  
**UL Rating:** UL 94-VO, Class F  
**2 Terminals:** Self Terminating  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags

**Application:** "Klip" mounts are designed as  
 a "self-led" inductor mount for wound  
 toroids. The molded "Klip" holds the toroid  
 leads for circuit board termination.



± .010 inches  
(mm) [Not to Scale]

PART NO.	LENGTH	WIDTH	A	B	HT.	T	X	KLIP WIRE SIZE	TOROID DIA.	PACKING TRAY
KM44-01	.580	.340	.480	.240	.280	.110	.220	24-23 AWG	.450	TY74x77-A
KM44-02	[14.73]	[8.63]	[12.19]	[6.09]	[7.11]	[2.79]	[5.58]	22-21 AWG		

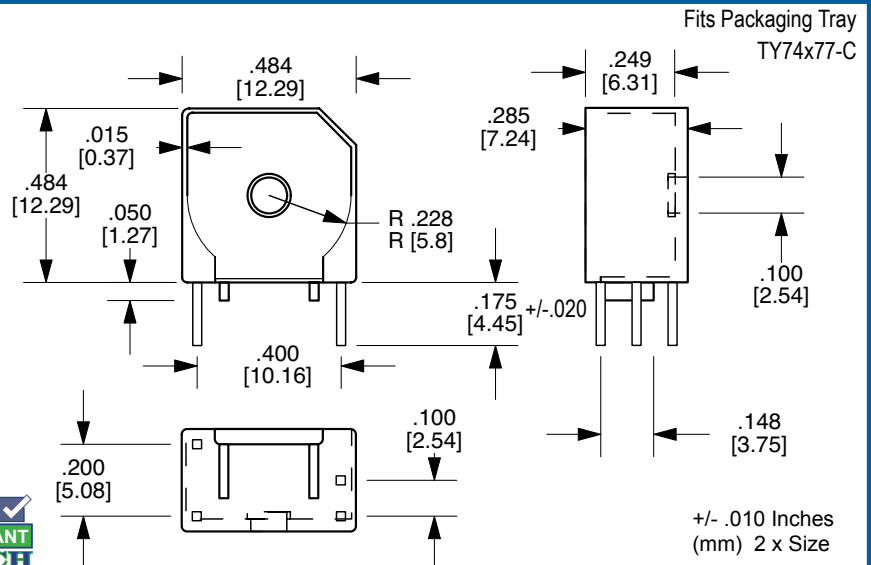
## VTM455-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass Wire  
 .020 (.5mm) Sq. 100% Tin Plate.  
**Solderability:** Per MIL-STD-202  
 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays  
 options on page 47.

**Application:** For vertical mounting of  
 wound toroids up to .455 inches in diam-  
 eter in inductor, transformer and current  
 sensor applications.

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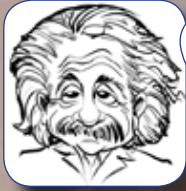


Fits Packaging Tray  
TY74x77-C

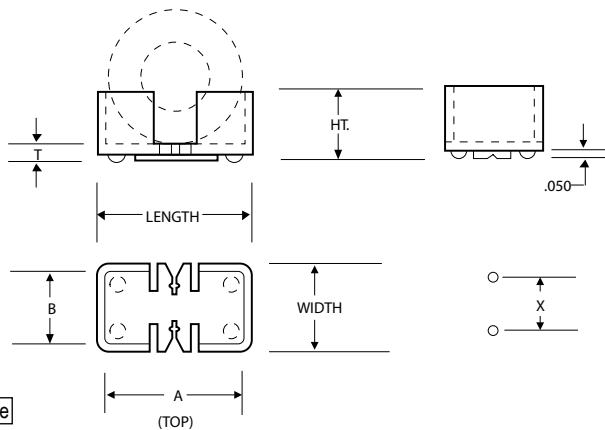
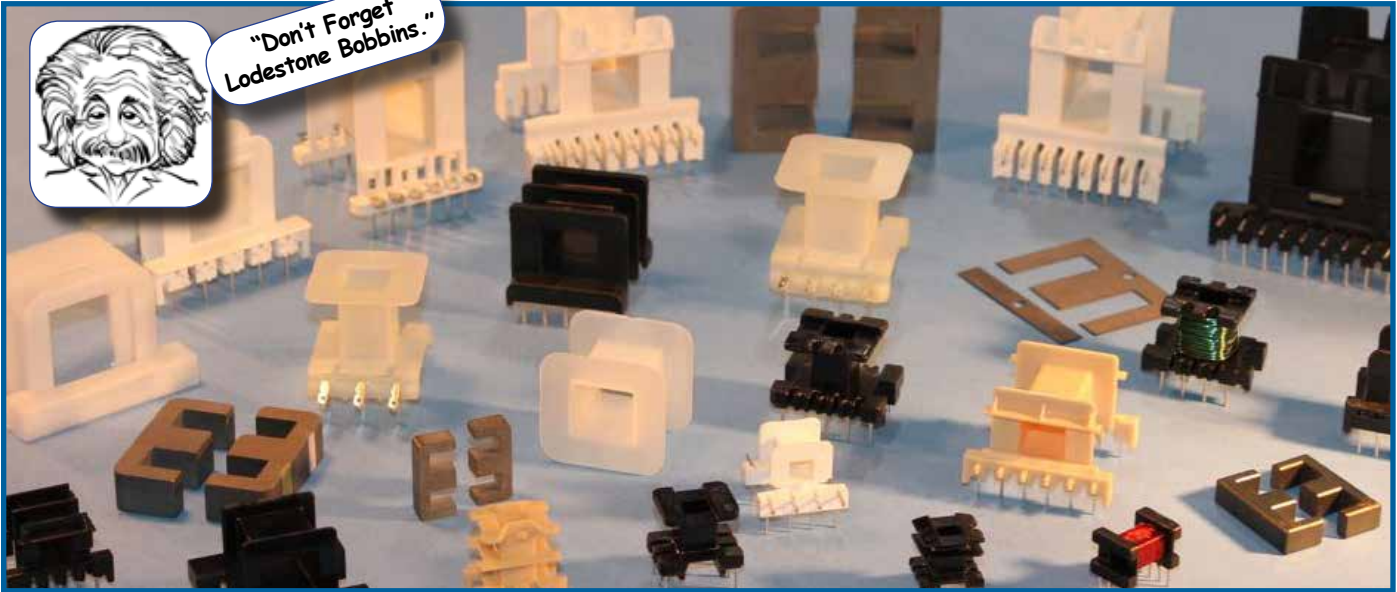


+/- .010 Inches  
(mm) 2 x Size





"Don't Forget  
Lodestone Bobbins."



± .010 inches  
[mm] Not to Scale



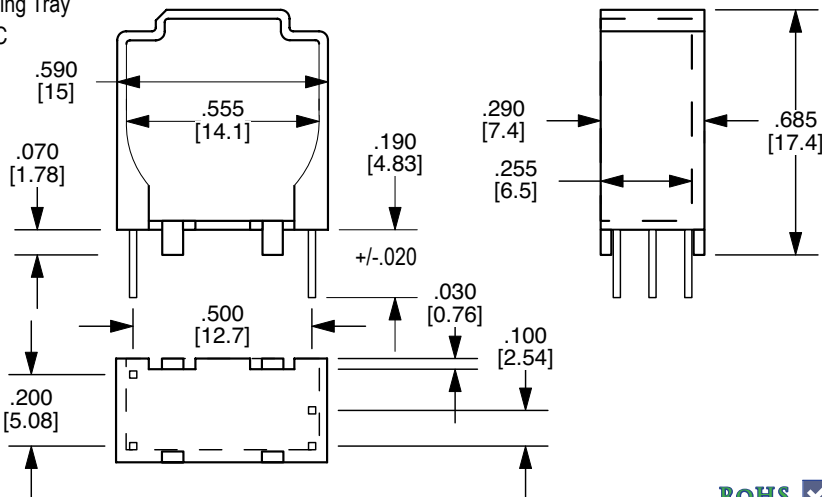
### KM50-01

### KM50-02

**Material:** GFN8 (Black)  
**UL Rating:** UL 94-VO, Class F  
**2 Terminals:** Self Terminating  
**Solderability:** Per MIL-STD-202 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** "Klip" mounts are designed as a "self-led" inductor mount for wound toroids. The molded "Klip" holds the toroid leads for circuit board termination.

PART NO.	LENGTH	WIDTH	A	B	HT.	T	X	KLIP WIRE SIZE	TOROID DIA.	PACKING TRAY
KM50-01	.650	.450	.550	.350	.300	.110	.300	24-21 AWG	.550	TY74x77-A
KM50-02	[16.51]	[11.43]	[13.97]	[8.89]	[7.62]	[2.79]	[7.62]	20-18 AWG		

Fits Packaging Tray  
TY65x100-C



+/- .010 Inches  
(mm) 2 x Size



### VTM555-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Brass Wire  
 .020 (.5mm) Sq. 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For vertical mounting of wound toroids up to .555 inches in diameter.

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Surface Mount

Horizontal

Vertical

Trays



**High Quality  
Vertical Toroid Mounts**

Surface Mount

Horizontal

Vertical

Trays

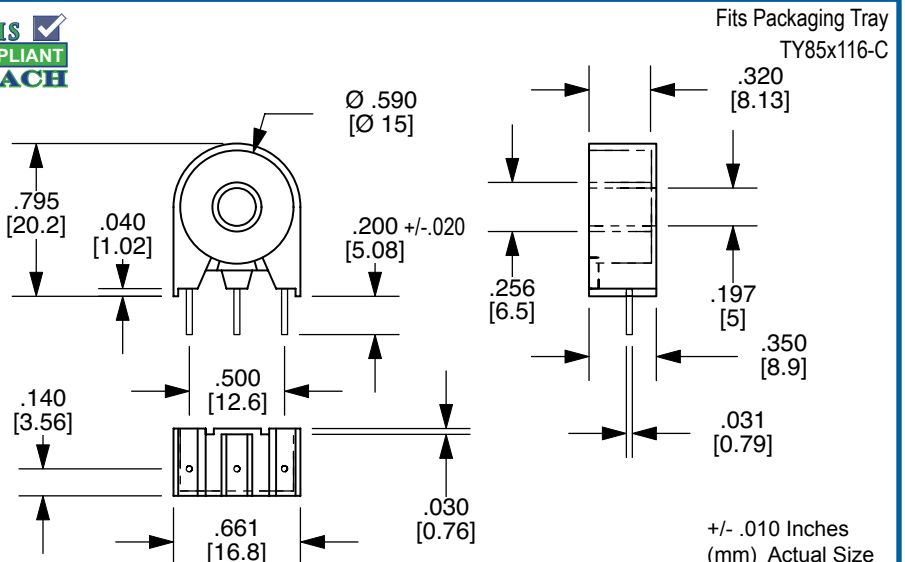
## VTM590-3

**Material:** PBT (Black)  
**UL Rating:** UL94-VO, Class F  
**3 Terminals:** CP Wire  
 100% Tin Plate  
**Solderability:** Per MIL-STD-202  
 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays  
 options on page 47.

**Application:** For vertical mounting  
 of wound toroids up to .590 inches in  
 diameter in inductor and current sensor  
 applications.

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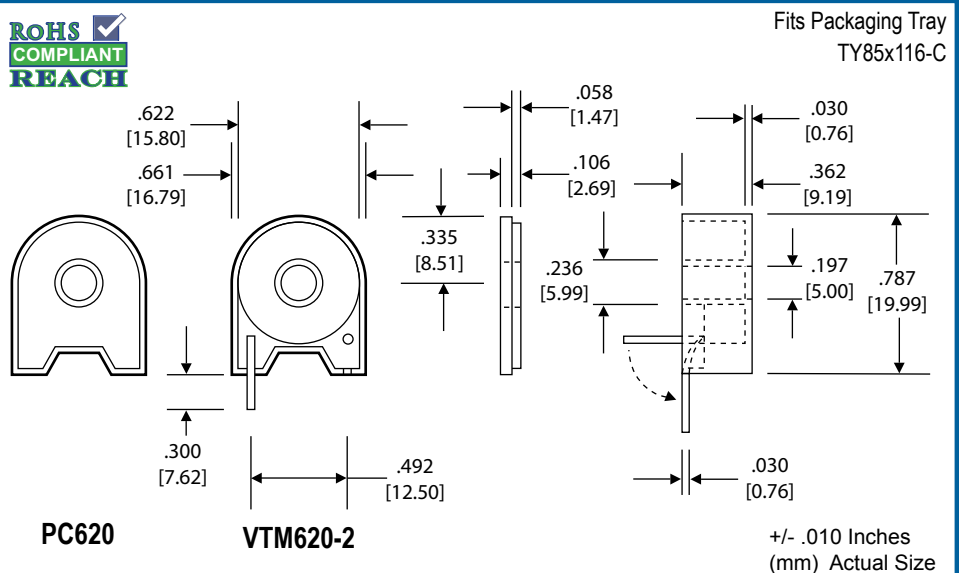


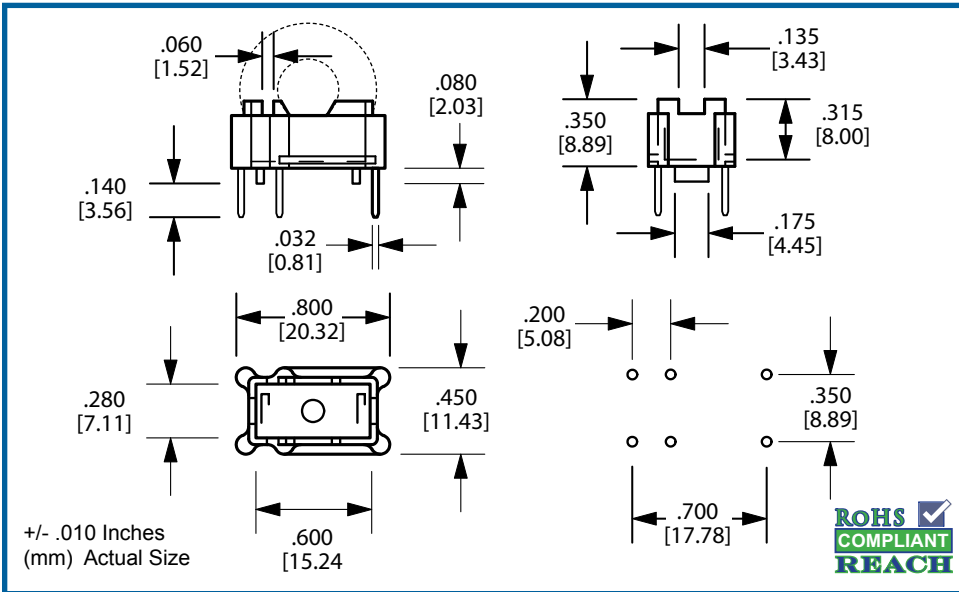
## VTM620-2

**Material:** PBT (Black)  
**UL Rating:** UL94-VO, Class F  
**2 Terminals:** CP Wire  
 100% Tin Plate  
**Solderability:** Per MIL-STD-202  
 Method 208

**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays  
 options on page 47.

**Application:** For vertical mounted inductors  
 or current sensors. Terminals are shipped  
 in the horizontal position to facilitate toroid  
 lead connection. Terminals are then moved  
 to the vertical position for circuit board  
 insertion. Optional snap-on cover PC620 is

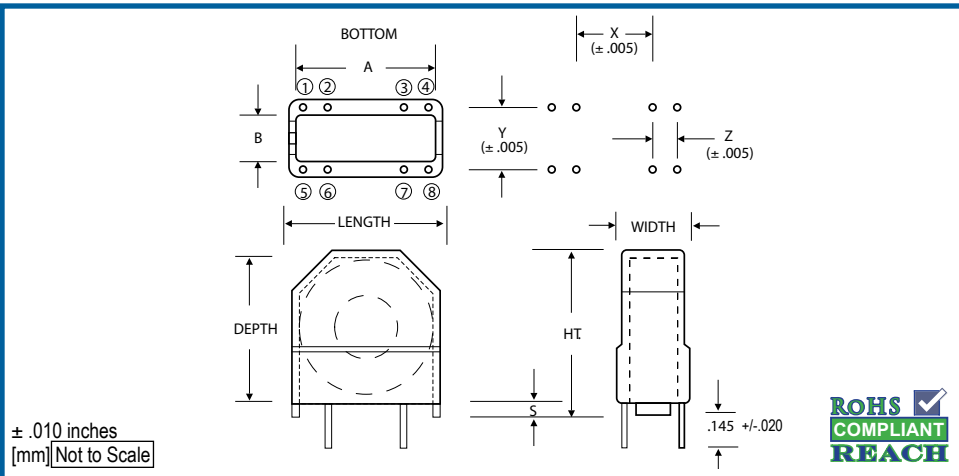




**VTM600-6**

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** CP Wire  
 100% Tin Plate  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For vertical mounting of wound toroids up to .600 inches in diameter in transformer, current sensing, and gate drive transformer applications.

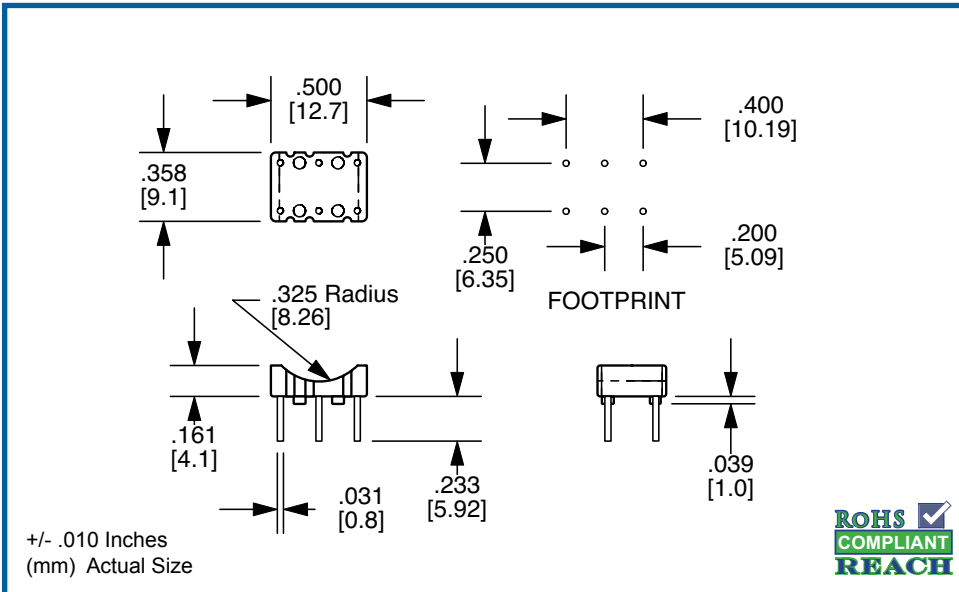
Made in our China Factory



**VTC613-4**

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** CP Wire (Square)  
 .026 (.66mm) Sq. 100% Tin Plate.  
**Solderability:** MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
**Application:** A European standard for enclosed vertical mounting of wound toroids. Four terminals in positions 2,3,6,7 is standard. Any terminal pattern can be provided, MOQ applies.

PART NO.	LENGTH	WIDTH	A	B	HT.	DEPTH	S	X	Y	Z	TRAY
VTC 613-4	.710 [18.0]	.510 [13.0]	.630 [16.0]	.315 [8.0]	.787 [20.0]	.685 [17.5]	.063 [1.6]	.197 [5.0]	.394 [10.0]	.197 [5.0]	TY85x116-C



**VTM650-6**

**Material:** PH3(Black)  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** CP Wire  
 100% Tin Plate  
**Solderability:** Per MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
 See RoHS compliant PET packaging trays options on page 47.  
**Application:** For vertical mounting of inductor, transformer and current sensor applications using a wound toroid up to .650 inches in diameter.

Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

Vertical

Trays

KM68-01		KM68-02								
<b>Material:</b>	GFN8 (Black)									
<b>UL Rating:</b>	UL 94-VO, Class F									
<b>2 Terminals:</b>	Self Terminating									
<b>Solderability:</b>	Per MIL-STD-202 Method 208									
<b>Packaging:</b>	Bulk in Polybags									
<b>Application:</b>	"Klip" mounts are designed as a "self-leaded" inductor mount for wound toroids. The molded "Klip" holds the toroid leads for circuit board termination.									

± .010 inches  
[mm] [Not to Scale]

PART NO.	LENGTH	WIDTH	A	B	HT.	T	X	KLIP WIRE SIZE	TOROID DIA.	PACKING TRAY
KM68-01	.830	.450	.730	.350	.370	.110	.300	24-21 AWG	.725	TY65x100-C
KM68-02	[21.08]	[11.43]	[18.54]	[8.89]	[9.39]	[2.79]	[7.62]	20-18 AWG		

NEW

VTB750-2										
<b>Material:</b>	PBT									
<b>UL Rating:</b>	UL94-VO, Class F									
<b>2 Terminals:</b>	CP Wire .025 [64] Sq									
<b>Packaging:</b>	Bulk in Polybags									
<b>Application:</b>	For vertical mounting of wound toroids up to .750 inches in diameter. Potting material or epoxy can be used to hold the toroids in the cups.									

± .010 inches  
[mm] [Not to Scale]

VTM800-08										
<b>Material:</b>	GFN (Natural)									
<b>UL Rating:</b>	UL94-VO, Class F									
<b>8 Terminals:</b>	Self leading									
<b>Packaging:</b>	Bulk in Polybags									
<b>Application:</b>	Designed for vertical mounting of .800 inch unwound toroids. The mount is designed to have the unwound core placed in the yoke, then to have the wire winding cover the core and yoke, holding the two in a single unit. Up to 8 winding leads are then snapped into the mount base. Best suited for #20 (.034) AWG.									

± .010 Inches  
(mm) Actual Size

Made in our China Factory





## Vertical Toroid Mounts

± .010 inches  
[mm] [Not to Scale]

### VTC774-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** CP Wire (Square)  
 .026 (.66mm) Sq. 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
**Application:** A European standard for enclosed vertical mounting of wound toroids. Four terminals in positions 2,3,6,7 is standard. Any terminal pattern can be provided, MOQ applies.

PART NO.	LENGTH	WIDTH	A	B	HT.	DEPTH	S	X	Y	Z	TRAY
VTC 774-4	.905 [23.0]	.610 [15.5]	.790 [20.0]	.394 [10.0]	.984 [25.0]	.889 [22.6]	.055 [1.4]	.394 [10.0]	.492 [12.5]	.197 [5.0]	TY85x116-C

Surface Mount

Horizontal

Vertical

Trays

± .010 inches  
[mm] [Not to Scale]

### KM80-01

**Material:** GFN8 (Black)  
**UL Rating:** UL 94-VO, Class F  
**2 Terminals:** Self Terminating  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** "Klip" mounts are designed as a "self-leaded" inductor mount for wound toroids. The molded "Klip" holds the toroid leads for circuit board termination.

### KM80-02

PART NO.	LENGTH	WIDTH	A	B	HT.	T	X	KLIP WIRE SIZE	TOROID DIA.	PACKING TRAY
KM80-01	.950	.600	.850	.500	.420	.110	.450	22-19 AWG	.850	TY122x140-C
KM80-02	[24.13]	[15.24]	[21.59]	[12.7]	[10.66]	[2.79]	[11.43]	18-17 AWG		

Surface Mount

Horizontal

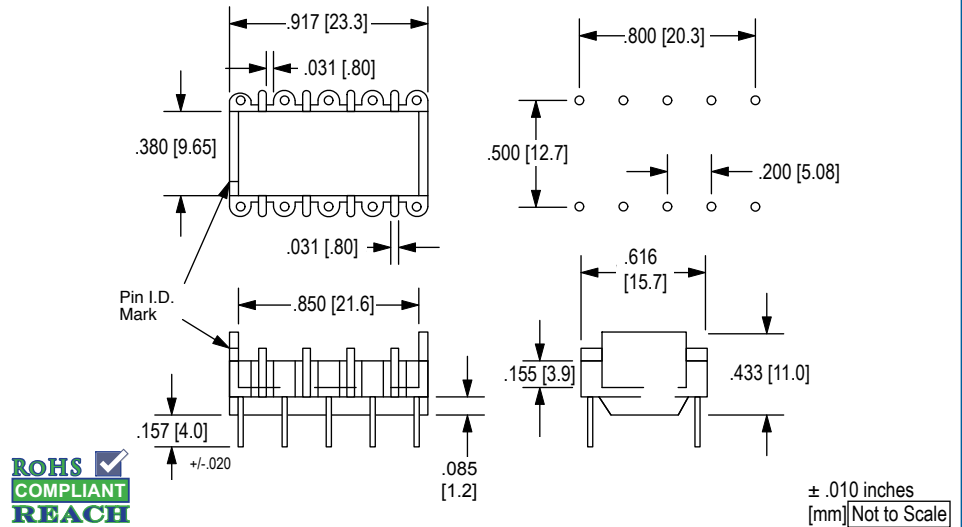
Vertical

Trays

## VTM880-10

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**10 Terminals:** CP Wire .020 [.5] Sq. 100% Tin Plate  
**Solderability:** MIL-STD-202 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids from .600 to 1.200 inches in diameter with up to 10 terminations.

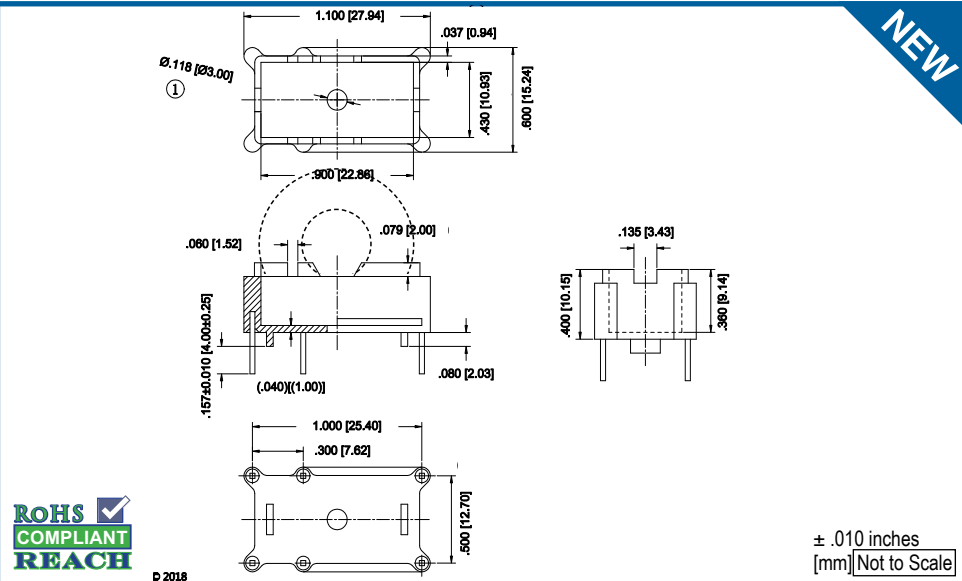
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## TM900-6

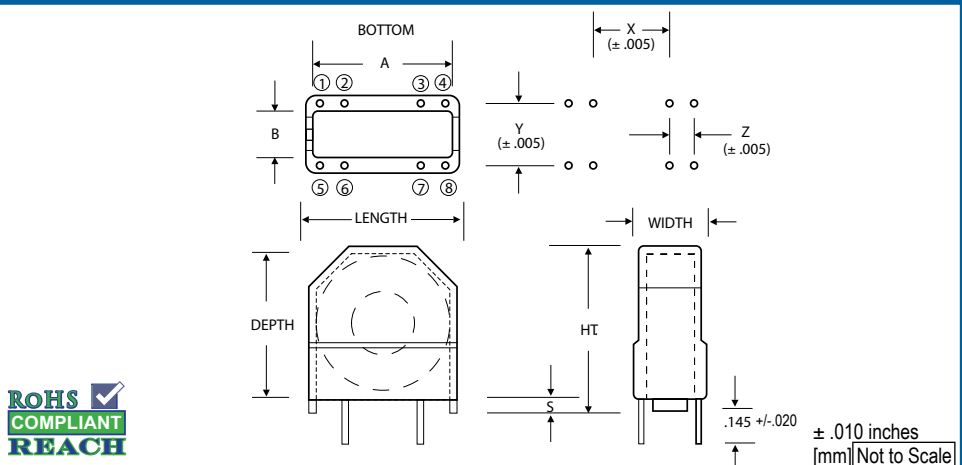
**Material:** GFN Natural  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** CP Wire .030 (.76mm) square, 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Packaging Tray:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to .90 inches in diameter requiring up to 6 terminations.

Made in our China Factory



## VTC935-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** CP Wire (Square) .026 (.66mm) Sq. 100% Tin Plate.  
**Solderability:** MIL-STD-202 Method 208  
**Package Method:** Bulk in Poly Bags  
**Application:** A European standard for enclosed vertical mounting of wound toroids. Four terminals in positions 2,3,6,7 is standard. Any terminal pattern can be provided, MOQ applies.

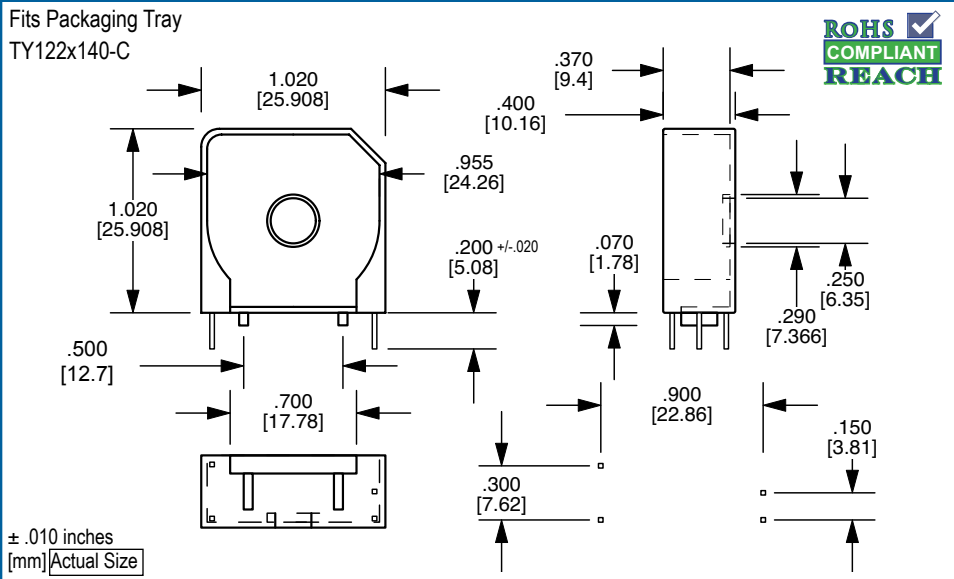


PART NO.	LENGTH	WIDTH	A	B	HT.	DEPTH	S	X	Y	Z	TRAY
VTC 935-4	1.060 [27.0]	.710 [18.0]	.950 [24.10]	.512 [13.0]	1.180 [30.0]	1.060 [27.0]	.060 [1.50]	.492 [12.5]	.590 [15.0]	.197 [5.0]	TY122x140-C



## High Quality Vertical Toroid Cups and Mounts

Fits Packaging Tray  
TY122x140-C



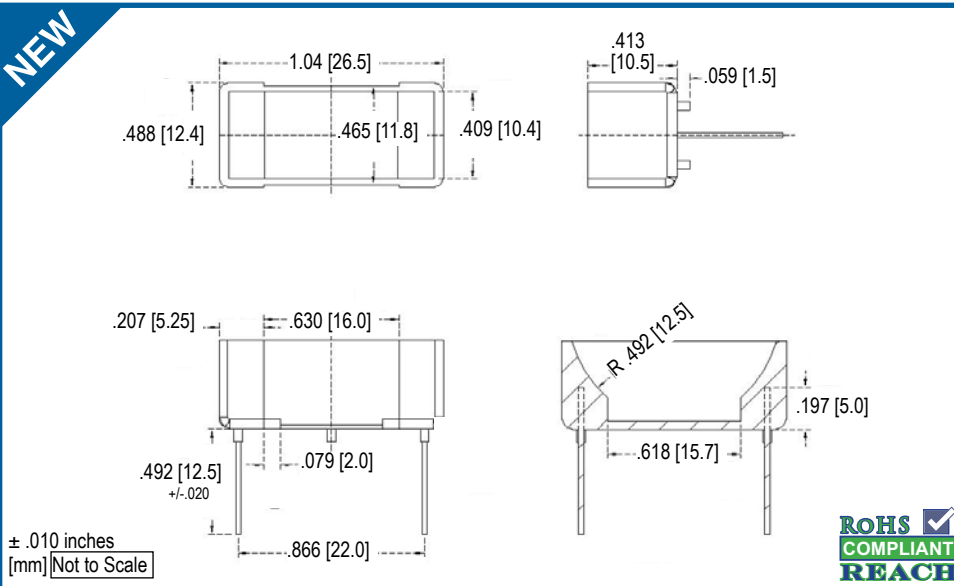
± .010 inches  
[mm] Actual Size

### VTM955-4

- Material:** GFN (Natural)
- UL Rating:** UL94-VO, Class F
- 4 Terminals:** CP Wire  
.026 (.66mm) Sq. 100% Tin Plate.
- Solderability:** Per MIL-STD-202 Method 208
- Package Method:** Bulk in Poly Bags  
See RoHS compliant PET packaging trays options on page 47.
- Application:** For vertical mounting of wound toroids up to .955 inches in diameter.

Made in our China Factory

**NEW**



± .010 inches  
[mm] Not to Scale

### VTB984-2

- Material:** PBT
- UL Rating:** UL94-VO, Class F
- 2 Terminals:** CP Wire
- Packaging:** Bulk in Polybags

**Application:** For vertical mounting of wound toroids up to .980 inches in diameter. Potting material or epoxy can be used to hold the toroids in the cups.

Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

Horizontal

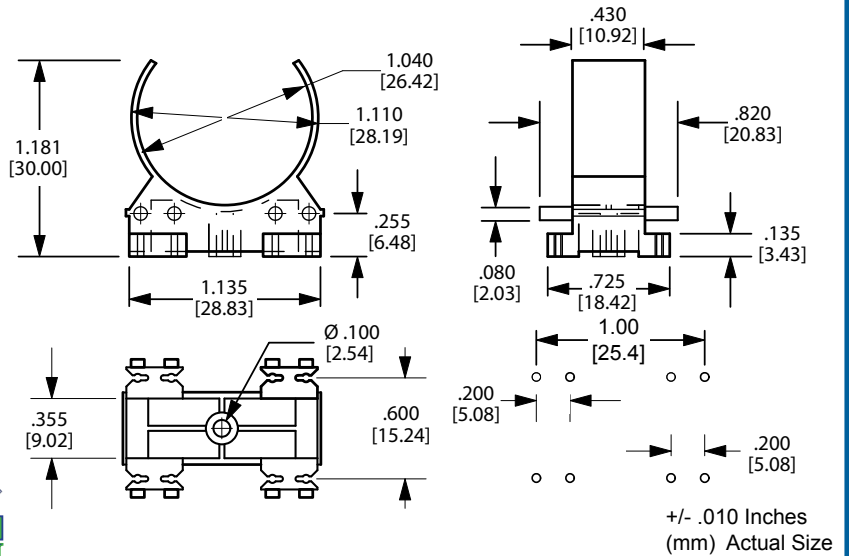
Vertical

Trays

## VTM1060-08

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**8 Terminals:** Self leading  
**Packaging:** Bulk in Polybags  
**Application:** Designed for vertical mounting of 1.06 inch unwound toroids. The mount is designed to have the unwound core placed in the yoke, then to have the wire winding cover the core and yoke, holding the two in a single unit. Up to 8 winding leads are then snapped into the mount base. Best suited for #16 (.048) through #18 (.040) AWG.

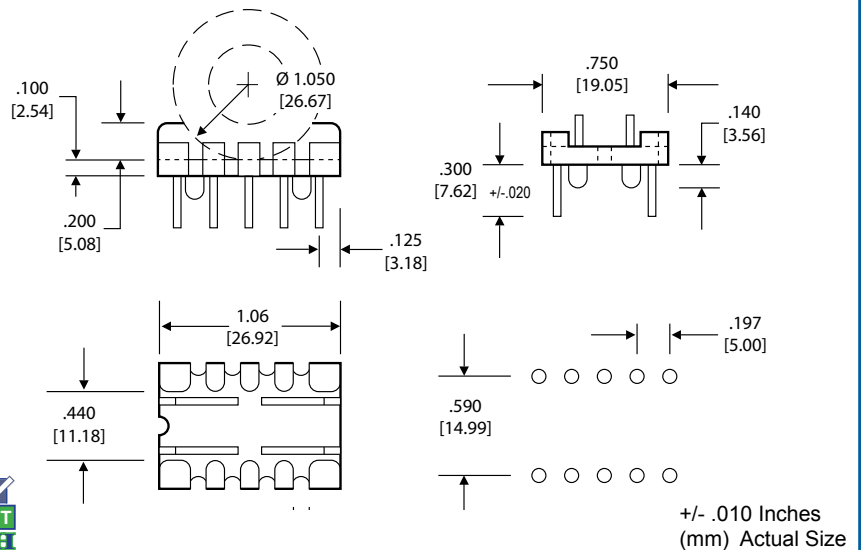
Made in our China Factory



## VTM1050-10

**Material:** PH3 (Black)  
**UL Rating:** UL94-VO, Class F  
**10 Terminals:** CP Wire  
 .040 (1mm) diameter, 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Packaging Tray:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to 1.1 inches in diameter requiring up to 10 terminations.

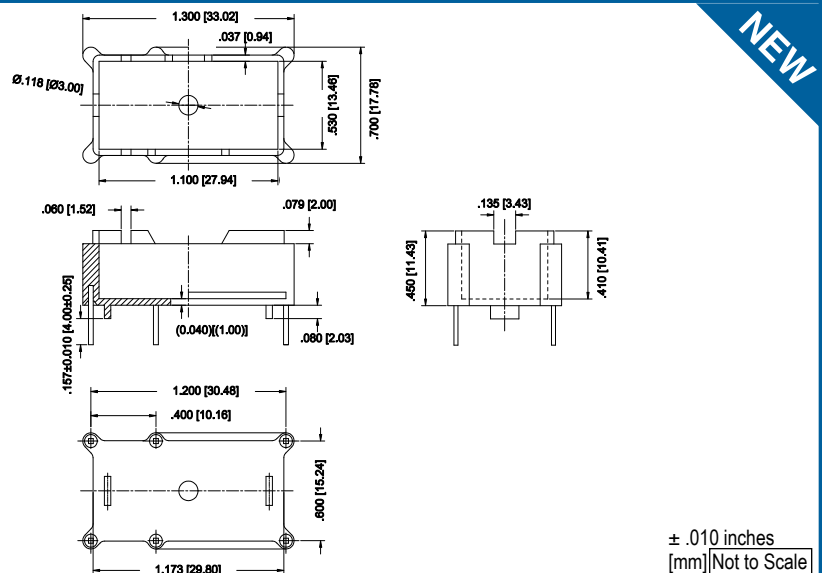
Made in our China Factory



## VTM1100-06

**Material:** GFN Natural  
**UL Rating:** UL94-VO, Class F  
**6 Terminals:** CP Wire  
 .030 (.76mm) square, 100% Tin Plate.  
**Solderability:** Per MIL-STD-202 Method 208  
**Packaging Tray:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to 1.1 inches in diameter requiring up to 6 terminations.

Made in our China Factory



NEW



± .010 inches  
[mm] Not to Scale

**ROHS COMPLIANT REACH**

PART NO.	LENGTH	WIDTH	A	B	HT.	T	X	KLIP WIRE SIZE	TOROID DIA.	PACKING TRAY
KM106-01	1.250	.700	1.150	.600	.580	.130	.500	22-19 AWG	1.150	TY122x140-C
KM106-02	[31.75]	[17.78]	[29.21]	[15.24]	[14.73]	[3.30]	[12.7]	18-17 AWG		

**KM106-01**      **KM106-02**

**Material:** GFN8 (Black)

**UL Rating:** UL 94-VO, Class F

**2 Terminals:** Self Terminating

**Solderability:** Per MIL-STD-202 Method 208

**Packaging:** Bulk in Polybags

**Application:** "Klip" mounts are designed as a "self-leaded" inductor mount for wound toroids. The molded "Klip" holds the toroid leads for circuit board termination.

+/- .010 Inches  
(mm) Actual Size

**ROHS COMPLIANT REACH**

**VTM100-4**

**Material:** GFN (Natural)

**UL Rating:** UL94-VO, Class F

**4 Terminals:** Copper Wire .040 Dia. (#18AWG) 100% Tin Plated

**Solderability:** Per MIL-STD-202 Method 208

**Packaging:** Bulk in Polybags

**Application:** An industry standard for vertical mounting of wound toroids up to 1.15 inches in diameter. VTM 100-0 is available with .037 through holes and no terminals.

± .010 inches  
[mm] Not to Scale

**ROHS COMPLIANT REACH**

**VTM1220-10**

**Material:** GFN (Natural)

**UL Rating:** UL94-VO, Class F

**10 Terminals:** CP Wire .027 [.7] Sq. 100% Tin Plate

**Solderability:** MIL-STD-202 Method 208

**Packaging:** Bulk in Polybags

**Application:** For vertical mounting of wound toroids from .600 to 1.200 inches in diameter with up to 10 terminations.

Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

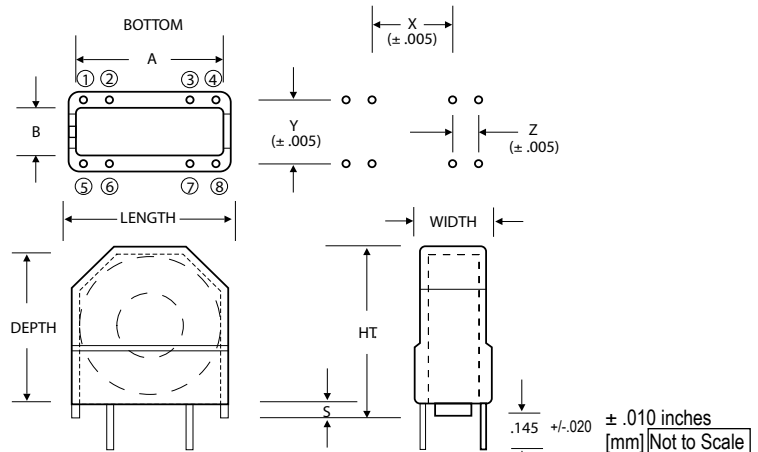
Horizontal

Vertical

Trays

## VTC1156-4

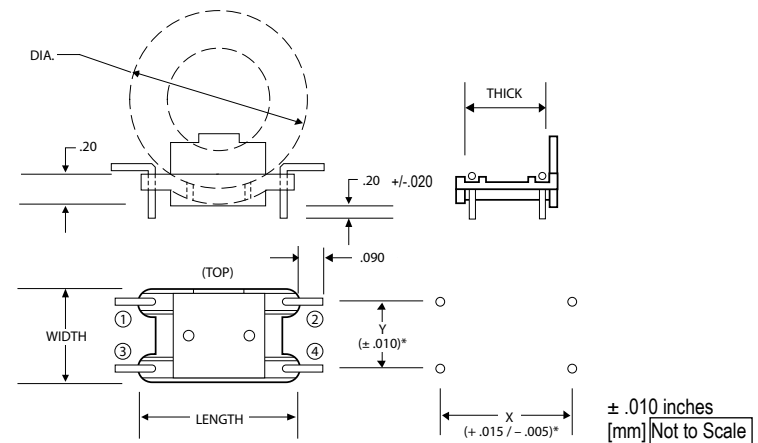
**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** CP Wire (Square)  
 .026 (.66mm) Sq. 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
**Application:** A European standard for enclosed vertical mounting of wound toroids. Four terminals in positions 2,3,6,7 is standard. Any terminal pattern can be provided, MOQ applies.



PART NO.	LENGTH	WIDTH	A	B	HT.	DEPTH	S	X	Y	Z	TRAY
VTC1156-4	1.260 [32.00]	.710 [18.0]	1.180 [30.0]	.512 [13.0]	1.378 [35.0]	1.240 [31.5]	.080 [2.0]	.492 [12.5]	.590 [15.0]	.295 [7.5]	None

## VTM120-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Copper Wire  
 .050 Dia. (#16AWG)  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** An industry standard for vertical mounting of wound toroids up to 1.20 inches in diameter.

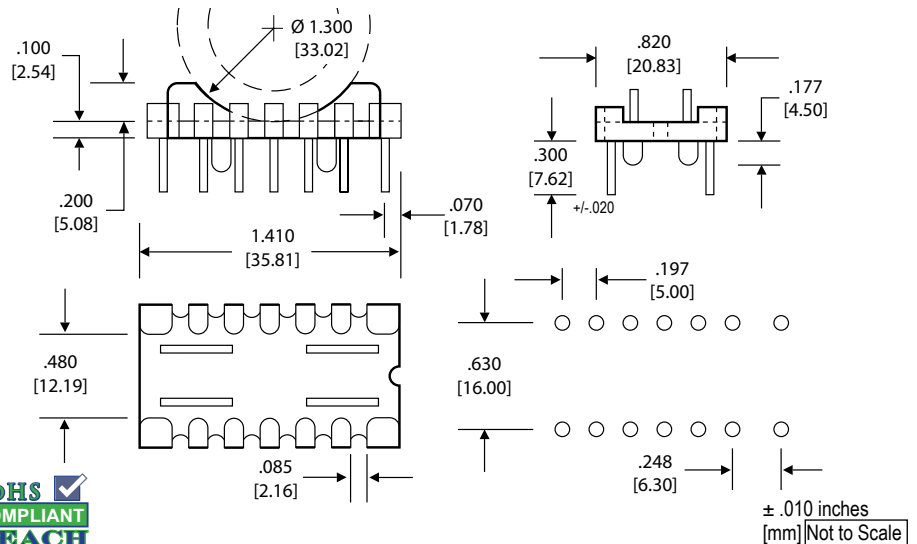


PART NO.	LENGTH	WIDTH	THICK.	DIA.	X	Y	TERMINALS
VTM120-0	1.00	.60	.51	1.20	.80	.40	None (.048 Holes)
VTM120-4	[25.4]	[15.24]	[12.95]	[30.48]	[20.32]	[10.16]	4 ea. #16 AWG (.050)

## VTM1300-14

**Material:** PH3 (Black)  
**UL Rating:** UL94-VO, Class F  
**14 Terminals:** CP Wire  
 .040 (1mm) Diameter. 100% Tin Plate.  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to 1.3 inches in diameter requiring up to 14 terminations.

Made in our China Factory



± .010 inches [mm] Not to Scale

### VTC1227-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Terminals:** CP Wire (Square)  
 .026 (.66mm) Sq. 100% Tin Plate.  
**Solderability:** MIL-STD-202  
 Method 208  
**Package Method:** Bulk in Poly Bags  
**Application:** A European standard for enclosed vertical mounting of wound toroids. Four terminals in positions 2,3,6,7 is standard. Any terminal pattern can be provided, MOQ applies.

PART NO.	LENGTH	WIDTH	A	B	HT.	DEPTH	S	X	Y	Z	TRAY
VTC1227-4	1.378 [35.0]	.905 [23.0]	1.300 [33.0]	.669 [17.0]	1.457 [37.0]	1.300 [33.0]	.080 [2.0]	.590 [15.0]	.787 [20.0]	.295 [7.5]	None

**NEW**

± .010 inches [mm] Not to Scale

### VTB1366-04

**Material:** PBT  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Self termination  
**Packaging:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids. The toroid leads go through the cup holes for PCB soldering. Potting material or epoxy can be used to hold the toroids in the cups.  
 Made in our China Factory

± .010 inches [mm] Not to Scale

### VTB1200-012

**Material:** Rynite (Black)  
**UL Rating:** UL94-VO, Class N  
**12 Terminals:** Self Terminating to 054 Dia.(#16AWG)  
**Packaging:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to 1.40 inches in diameter. The 12 through holes allow self leading of up to 12 component leads. The rectangular cup shape facilitates potting the toroid firmly in place.  
 Made in our China Factory

Surface Mount

Horizontal

Vertical

Trays



Large Toroid Cups and Mounts

Surface Mount

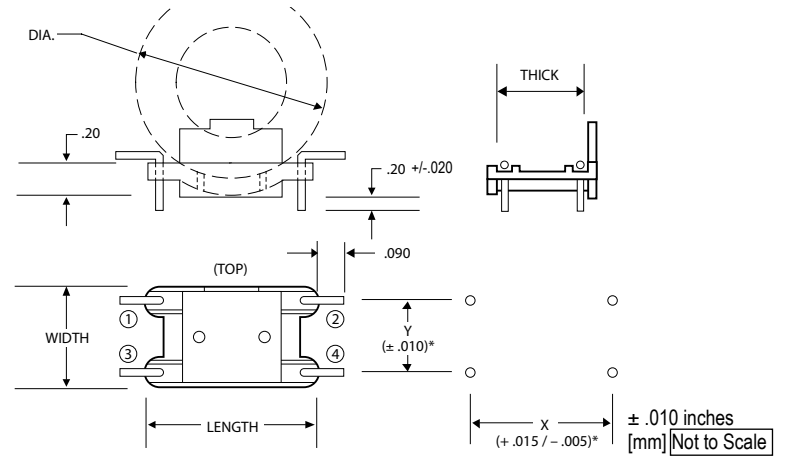
Horizontal

Vertical

Trays

## VTM160-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Copper Wire  
 .050 Dia. (#16AWG) 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** An industry standard for vertical mounting of wound toroids up to 1.60 inches in diameter. Spacers for Common Mode applications on Page 46.

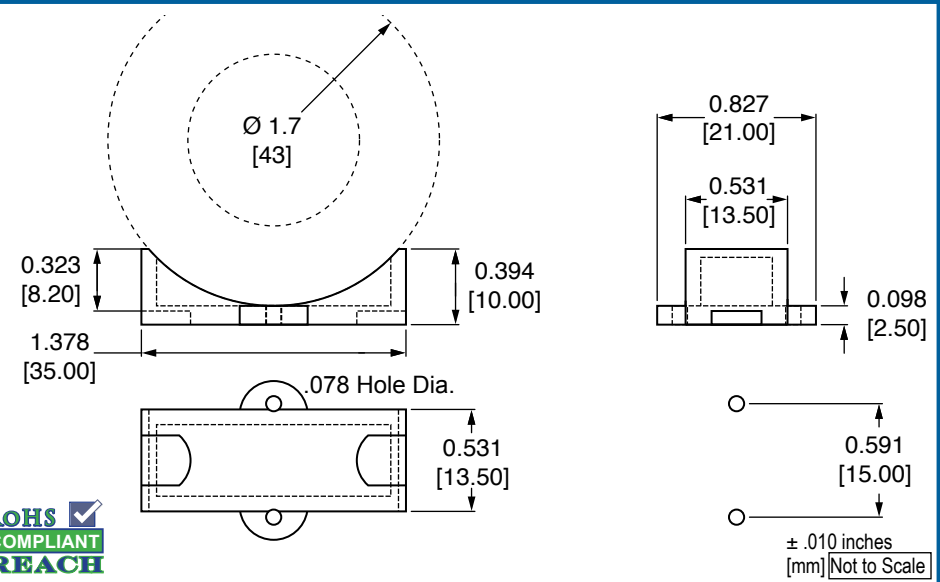


PART NO.	LENGTH	WIDTH	THICK.	DIA.	X	Y	TERMINALS
VTM160-0	1.10	.80	.71	1.60	.90	.60	None (.048 Holes)
VTM160-4	[27.94]	[20.32]	[18.03]	[40.64]	[22.86]	[15.24]	4 ea. #16 AWG (.050)

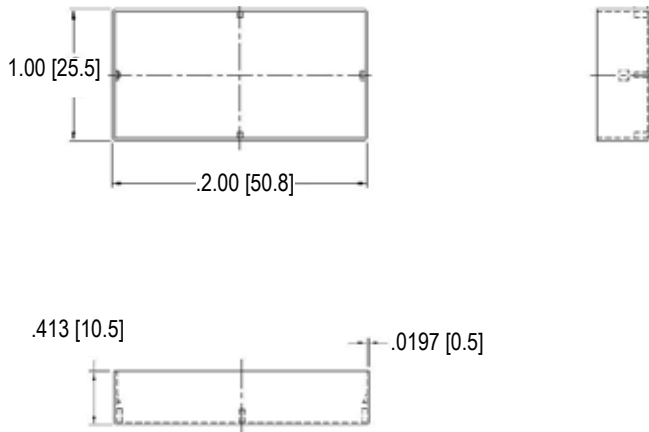
## VTM1600-02

**Material:** PBT (Black)  
**UL Rating:** UL94-VO, Class B  
**2 Terminals:** Self Terminating  
**Packaging:** Bulk in Polybags  
**Application:** For vertical mounting of wound toroids up to 1.7 inches in diameter. The 2 through holes allow self leading of 2 component leads.

Made in our China Factory



**NEW**



± .010 inches  
[mm] Not to Scale

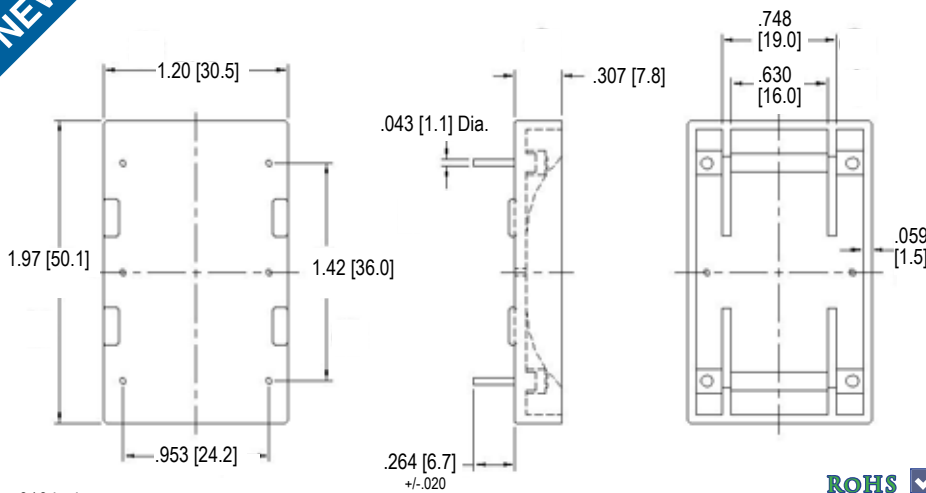


### VTB2250-0

**Material:** PH3 (Black)  
**UL Rating:** UL94-VO, Class F  
**Packaging:** Bulk in Polybags  
**Application:** An industry standard for vertical mounting of wound toroids up to 2.25 inches in diameter. Customer would add holes to base as needed.

Made in our China Factory

**NEW**



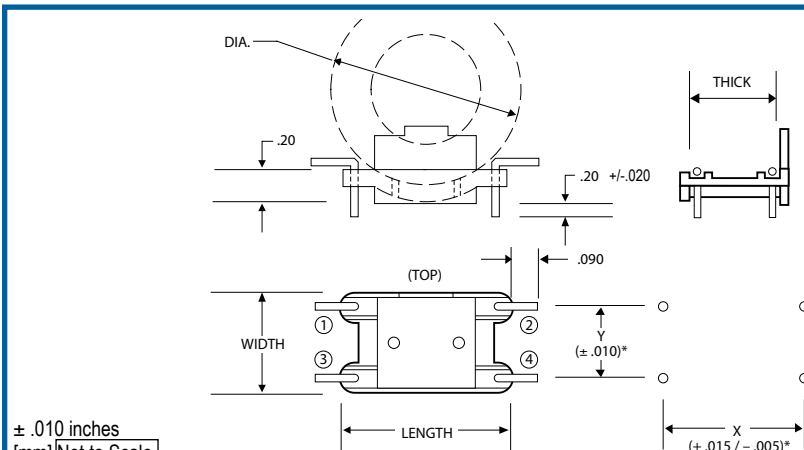
± .010 inches  
[mm] Not to Scale



### VTM2500-02/4

**Material:** PPS (Black)  
**UL Rating:** UL94-VO, Class F  
**2 Terminals:** Self Terminating  
 4 CP Wire Post for PCB Mounting  
 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** For mounting large heavy wound toroids up to 2.5 inches in diameter to be epoxied to the mount. 4 ea. plated posts are for anchoring to the PCB or case.

Made in our China Factory



± .010 inches  
[mm] Not to Scale



### VTM254-4

**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Copper Wire  
 .050 Dia. (#16AWG) 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
 Method 208  
**Packaging:** Bulk in Polybags  
**Application:** An industry standard for vertical mounting of wound toroids up to 2.54 inches in diameter. Spacers for Common Mode applications on Page 46.

PART NO.	LENGTH	WIDTH	THICK.	DIA.	X	Y	TERMINALS
VTM254-0	1.40	.90	.81	2.54	1.20	.70	None (.048 Holes)
VTM254-4	[35.56]	[22.86]	[20.57]	[64.51]	[30.48]	[17.78]	4, #16 AWG (.050)

Surface Mount

Horizontal

Vertical

Trays

Surface Mount

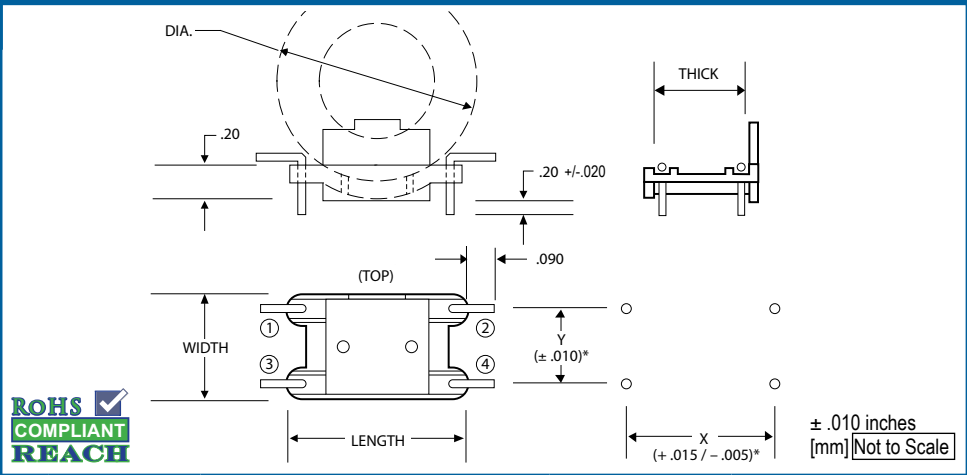
Horizontal

Vertical

Trays

**VTM280-0**      **VTM280-4**

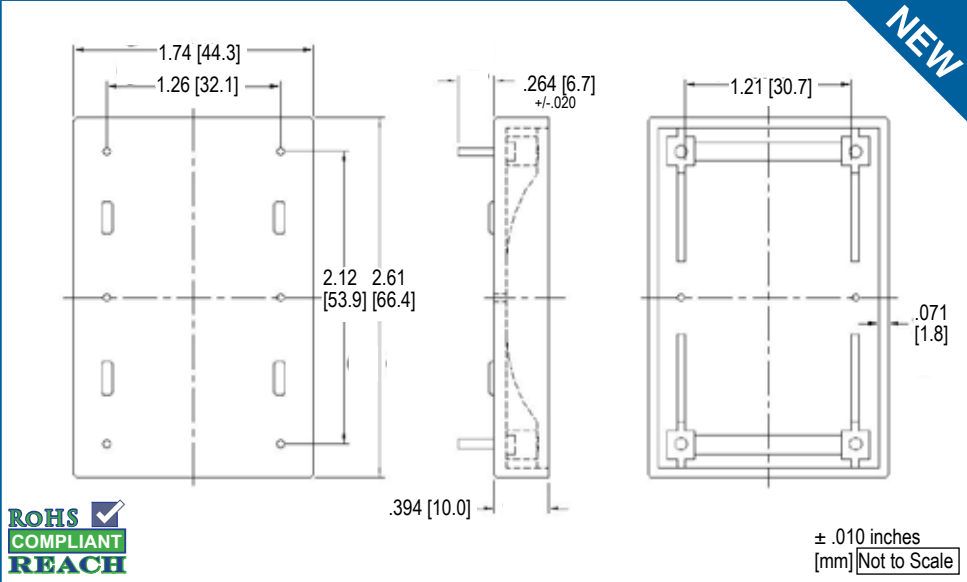
**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**4 Terminals:** Copper Wire  
                   .050 Dia. (#16AWG) 100% Tin Plated  
**Solderability:** Per MIL-STD-202  
                   Method 208  
**Packaging:** Bulk in Polybags  
**Application:** An industry standard for vertical mounting of wound toroids up to 2.80 inches in diameter. Spacers for Common Mode applications on Page 46.



PART NO.	LENGTH	WIDTH	THICK.	DIA.	X	Y	TERMINALS
VTM280-0	1.70	1.10	1.01	2.80	1.50	.90	None (.048 Holes)
VTM280-4	[43.18]	[27.79]	[25.65]	[71.12]	[38.1]	[22.86]	4=#16 AWG (.050)

**VTM3000-02/4**

**Material:** PPS (Black)  
**UL Rating:** UL94-VO, Class F  
**2 Terminals:** Self Terminating  
                   4 CP Wire Post for PCB Mounting  
                   100% Tin Plated  
**Solderability:** Per MIL-STD-202  
                   Method 208  
**Packaging:** Bulk in Polybags  
**Application:** For mounting large heavy wound toroids up to 3.0 inches in diameter to be epoxied to the mount. 4 ea. plated posts are for anchoring to the PCB or case.

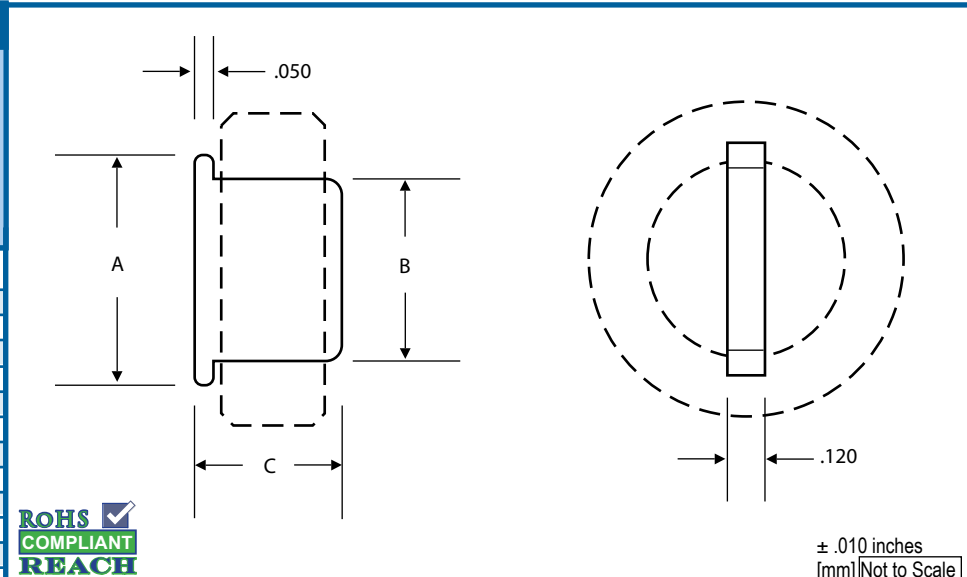


**NEW**

**TS SERIES**

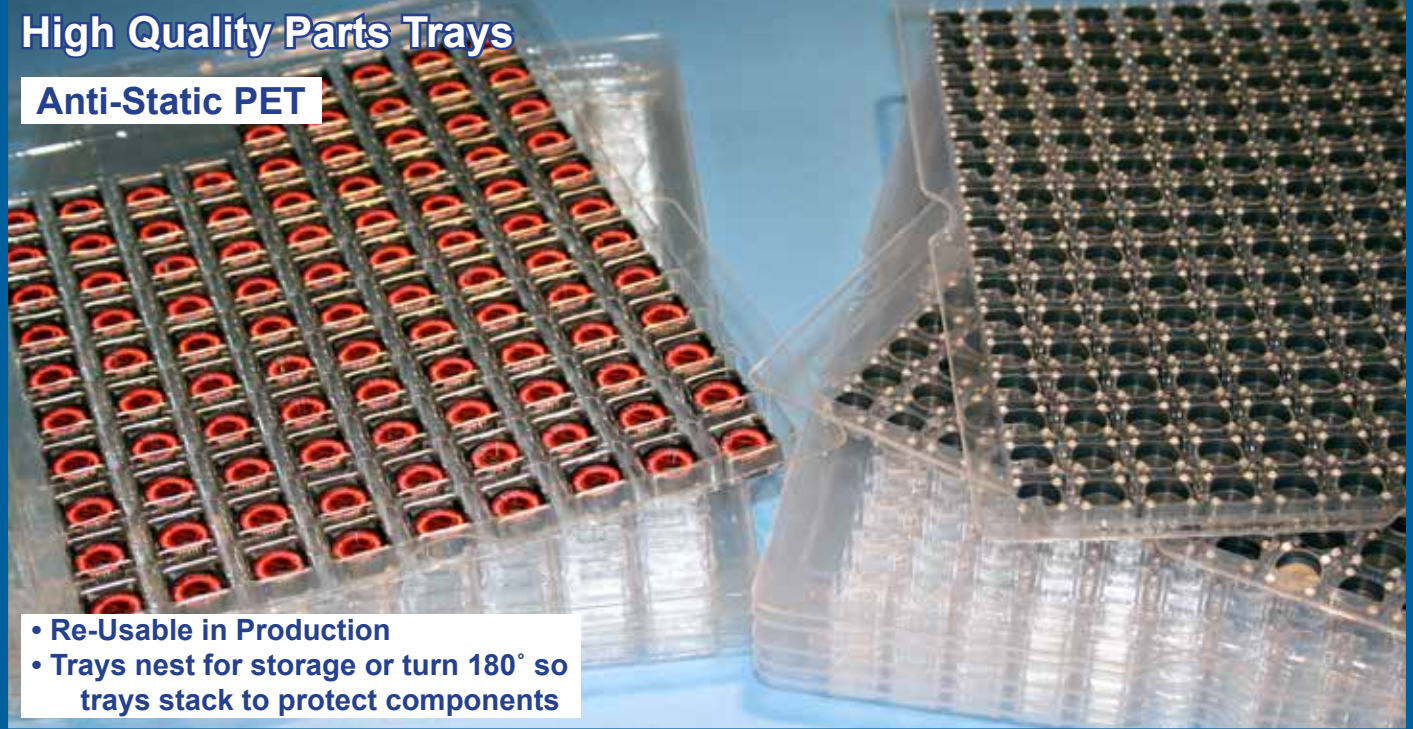
**Material:** GFN (Natural)  
**UL Rating:** UL94-VO, Class F  
**Packaging:** Bulk in Polybags  
**Application:** Spacers are for common mode chokes requiring voltage isolation.

Part No.	A	B	C
TS33-13	.460 [11.7]	.315 [8.0]	.285 [7.2]
TS48-12	.660 [16.7]	.465 [11.8]	.365 [9.3]
TS52-03	.660 [16.7]	.490 [12.2]	.412 [10.5]
TS52-05	.660 [16.7]	.510 [12.9]	.600 [15.2]
TS59-06	.730 [18.5]	.560 [14.2]	.412 [10.5]
TS73-01	.930 [23.6]	.720 [18.2]	.700 [17.8]
TS73-11	.930 [23.6]	.722 [18.3]	.430 [10.9]
TS89-07	1.025 [26.0]	.875 [22.2]	.690 [17.5]
TS94-14	1.030 [26.1]	.930 [23.6]	.670 [17.0]
TS130-10	1.460 [37.1]	1.290 [32.8]	.740 [18.8]
TS140-08	1.372 [34.8]	1.212 [30.8]	.875 [22.2]



## High Quality Parts Trays

**Anti-Static PET**



- Re-Usable in Production
- Trays nest for storage or turn 180° so trays stack to protect components

## Packaging Trays

- Facilitate Automatic Pick and Place
- Protect parts from handling damage
- Can affix bar code labels and QC approvals
- Accurate quantities without counting scales
- Convenient part number and quantity marking
- Easily move product through production process
- Can be re-used to package finished components
- Anti-Static PET to EIA-541 and RoHS Compliant

It is important to protect the terminals of wound components, and trays are ideal for protecting components during transport, handling components during winding, or for delivering the finished component to PCB insertion. Our trays nest for ease of transport and storage, or when turned 180°, stack to protect the components in each cavity. There is an optional cover, TY1000-C, that is common to all trays and is priced separately. The cover can be used with each tray, or as the top of a stack of trays. Packaging components in trays reduces overall component cost by reducing counting errors, eliminating transit damage, and is a cost effective packaging method. The trays and tubes can be re-used when the component is complete.

**Anti-Static, RoHS Compliant PET:** These clear trays are available in all standard tray sizes and are sold separately. These anti-static trays meet EIA-541 and are available in stock. The environmental friendly PET “C” series trays replace former “A” series PVC trays.

We can create trays with custom cavity sizes within our standard 8.75 by 11.75 inch tray, or entirely to your specifications. The title block in each tray can be customized with a customer’s name and/or part number, MOQs apply. Please contact Lodestone Pacific for a quote of your custom requirements.

Tray No.	Cavity Width	Cavity Length	Cavity Depth	Material	Cavities	Page
TY28x65-C	.28	.65	.33	PET	280	48
TY37x47-C	.37	.47	.33	PET	260	49
TY50x50-C	.50	.50	.32	PET	200	50
TY45x70-C	.45	.70	.35	PET	150	51
TY74x77-C	.74	.77	.40	PET	100	52
TY65x100-C	.65	1.0	.45	PET	75	53
TY85x116-C	.85	1.16	.69	PET	50	54
TY122x140-C	1.22	1.4	.65	PET	35	55

Surface Mount

Horizontal

Vertical

Trays

## TY28X65-C

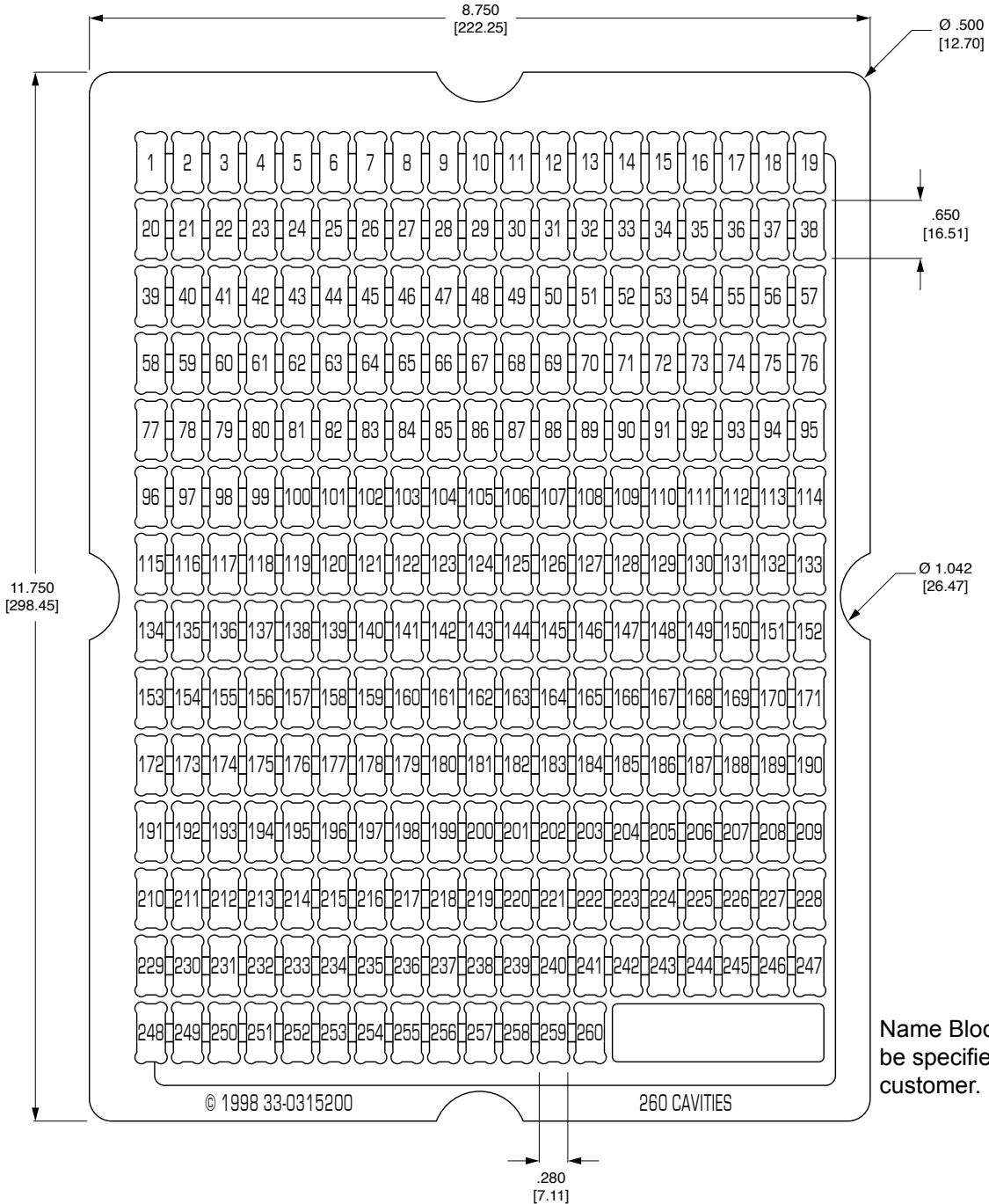
Material: PET (.020 Thick)  
 Rating: Clear, Anti-static to EIA-541  
 Sold Separately

Surface Mount

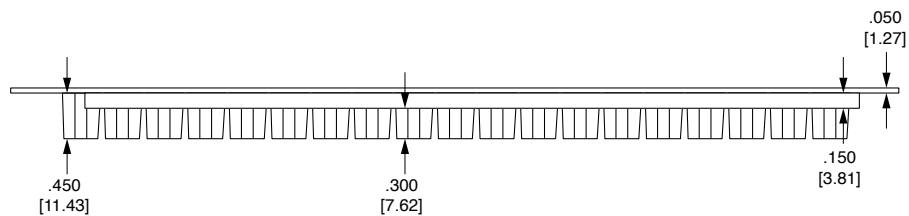
Horizontal

Vertical

Trays



Name Block can be specified by customer.

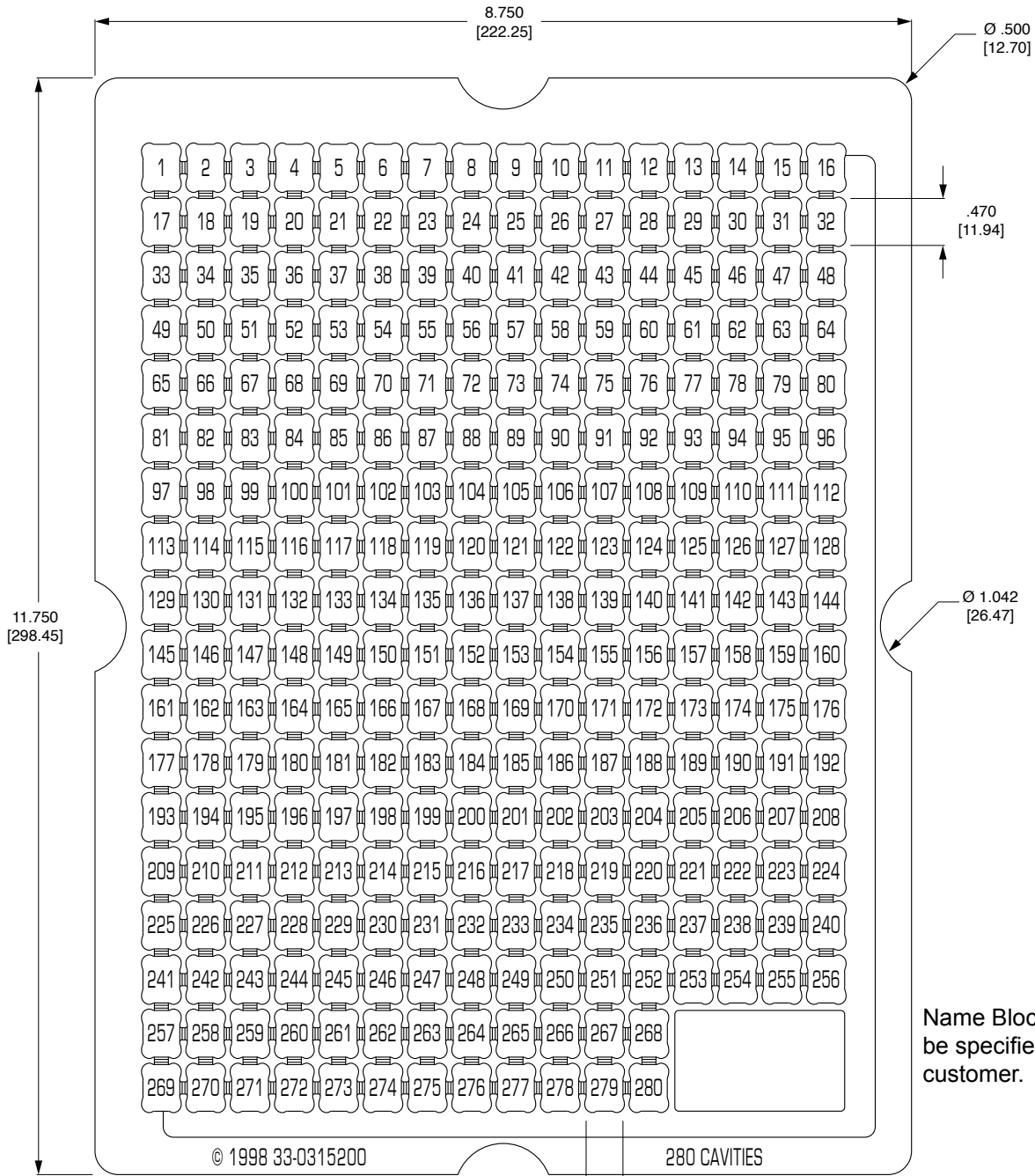


± .010 inches  
 [mm] Not to Scale

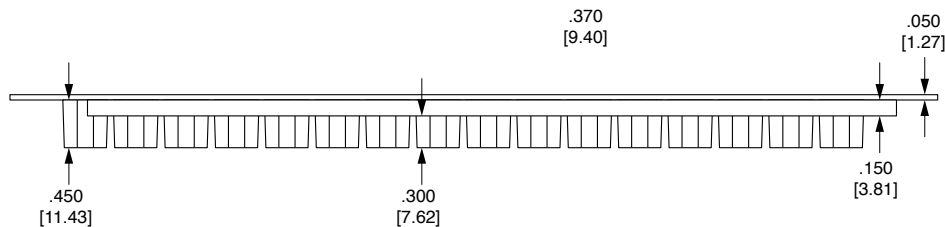


TY37X47-C

Material: PET (.020 Thick)  
Rating: Clear, Anti-static to EIA-541  
Sold Separately



Name Block can be specified by customer.



Surface Mount

Horizontal

Vertical

Trays

## TY50X50-C

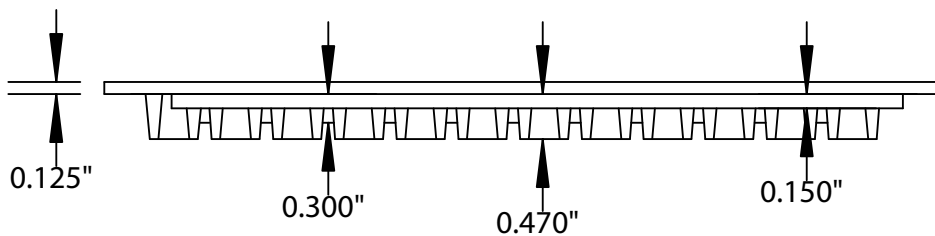
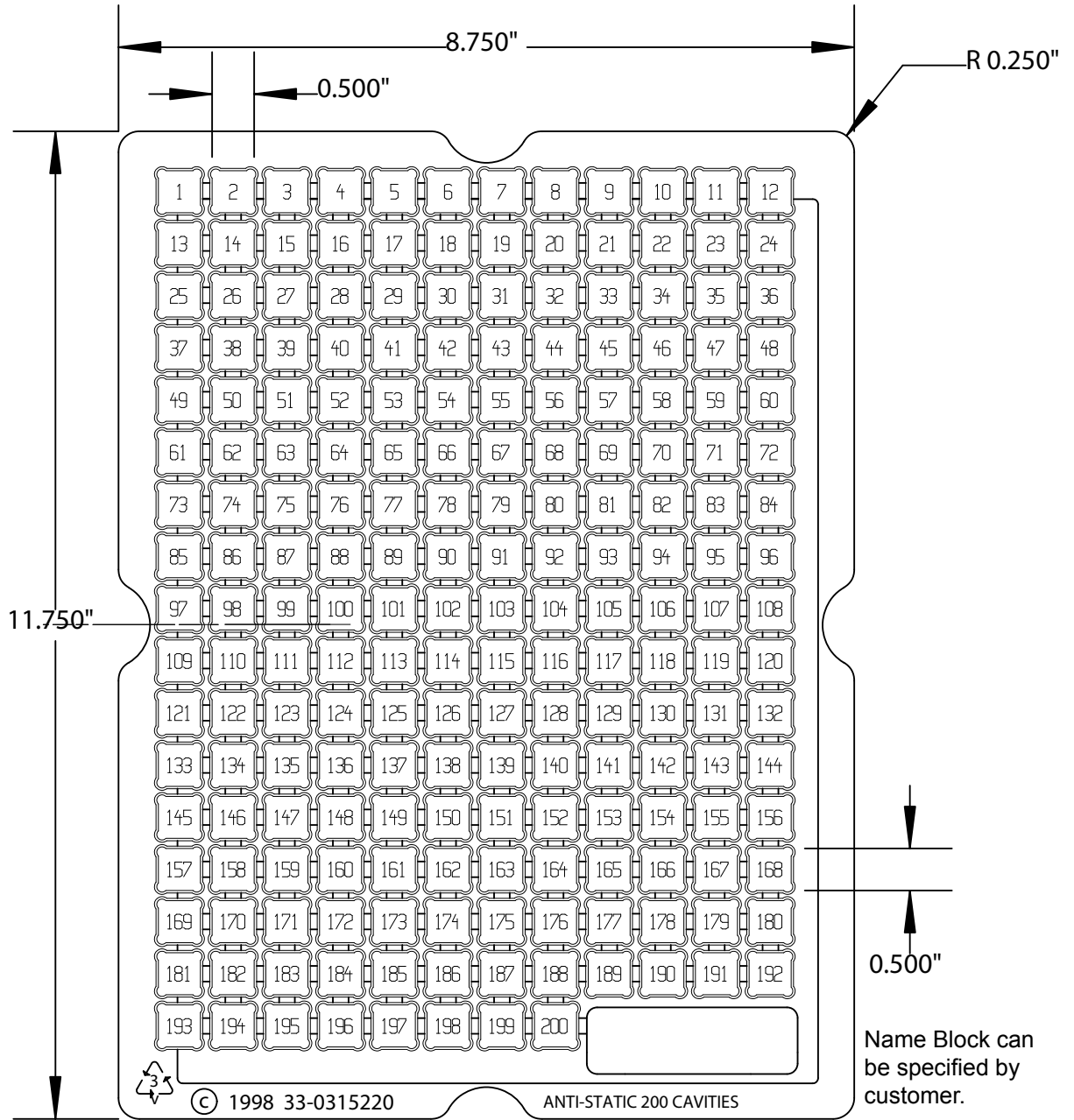
Material: PET (.020 Thick)  
 Rating: Clear, Anti-static to EIA-541  
 Sold Separately

Surface Mount

Horizontal

Vertical

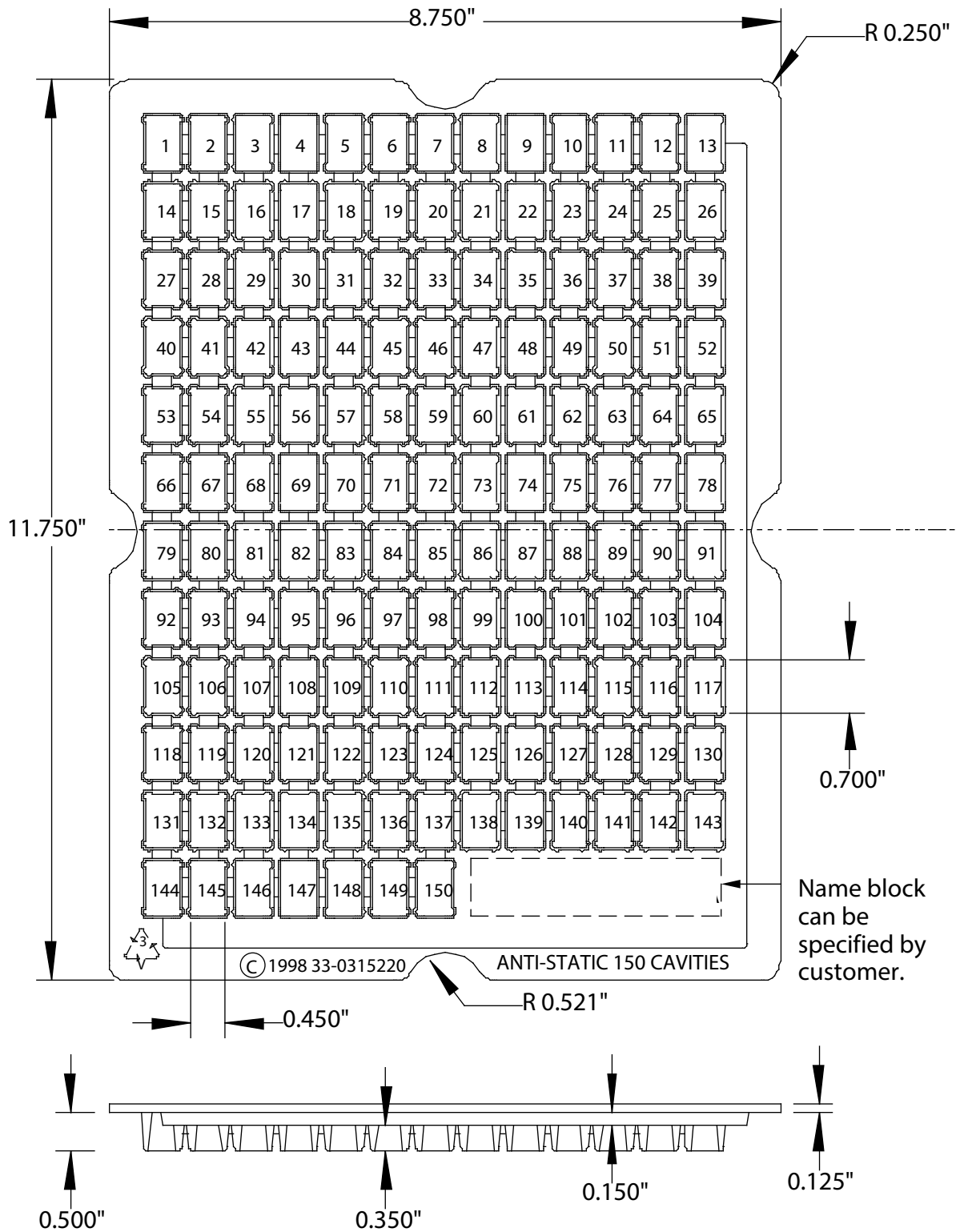
Trays



± .010 inches  
 [mm] [Not to Scale]

TY45X70-C

Material: PET (.020 Thick)  
Rating: Clear, Anti-static to EIA-541  
Sold Separately



Surface Mount

Horizontal

Vertical

Trays

± .010 inches  
[mm] Not to Scale

## TY74X77-C

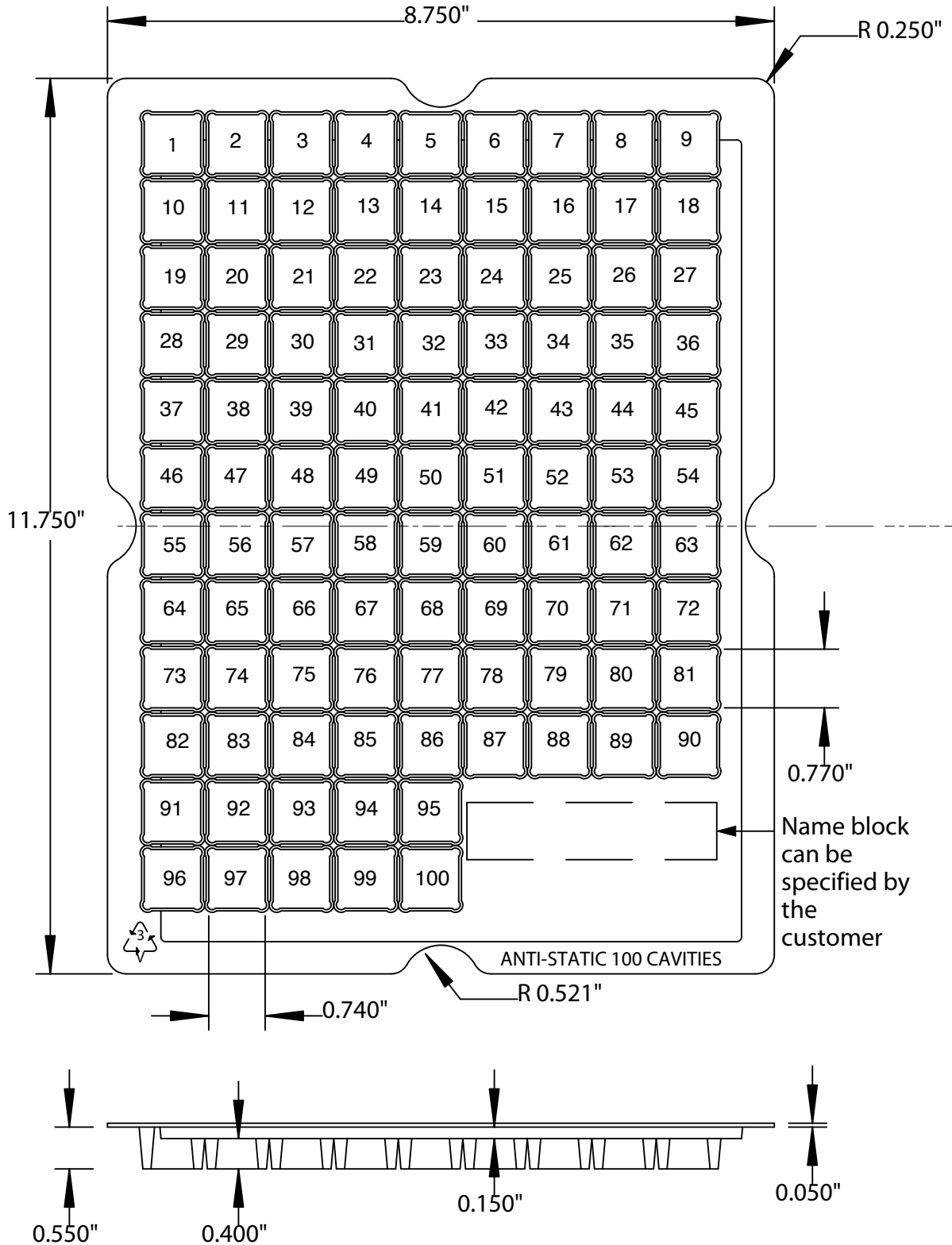
Material: PET (.020 Thick)  
 Rating: Clear, Anti-static to EIA-541  
 Sold Separately

Surface Mount

Horizontal

Vertical

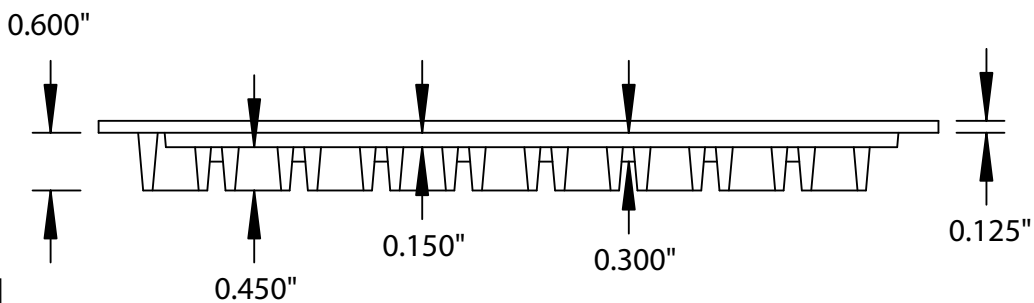
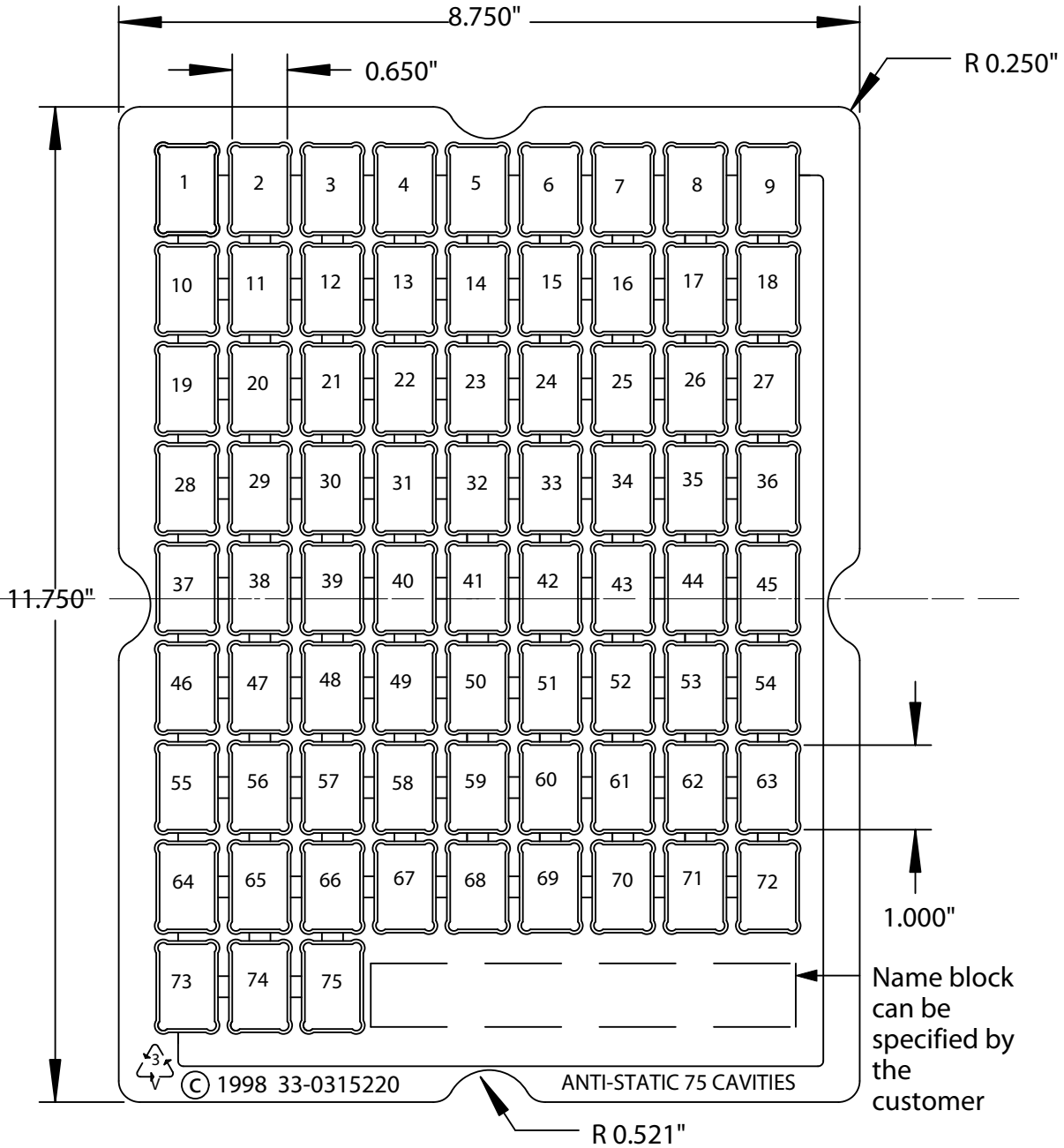
Trays



± .010 inches  
 [mm] Not to Scale

**TY65X100-C**

Material: PET (.020 Thick)  
Rating: Clear, Anti-static to EIA-541  
Sold Separately



± .010 inches  
[mm] Not to Scale

Surface Mount

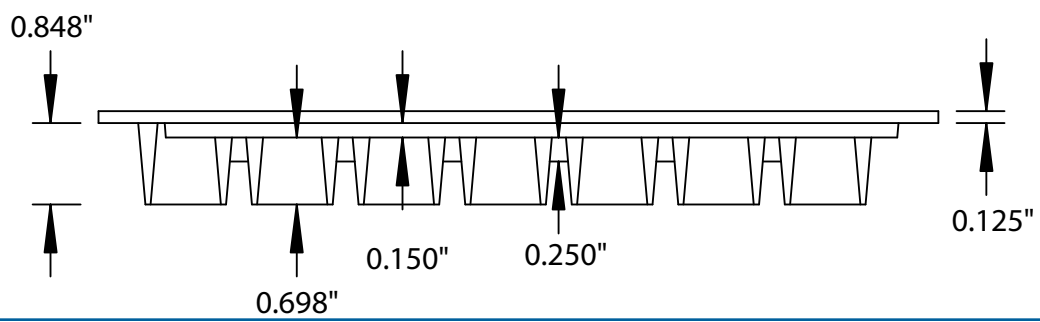
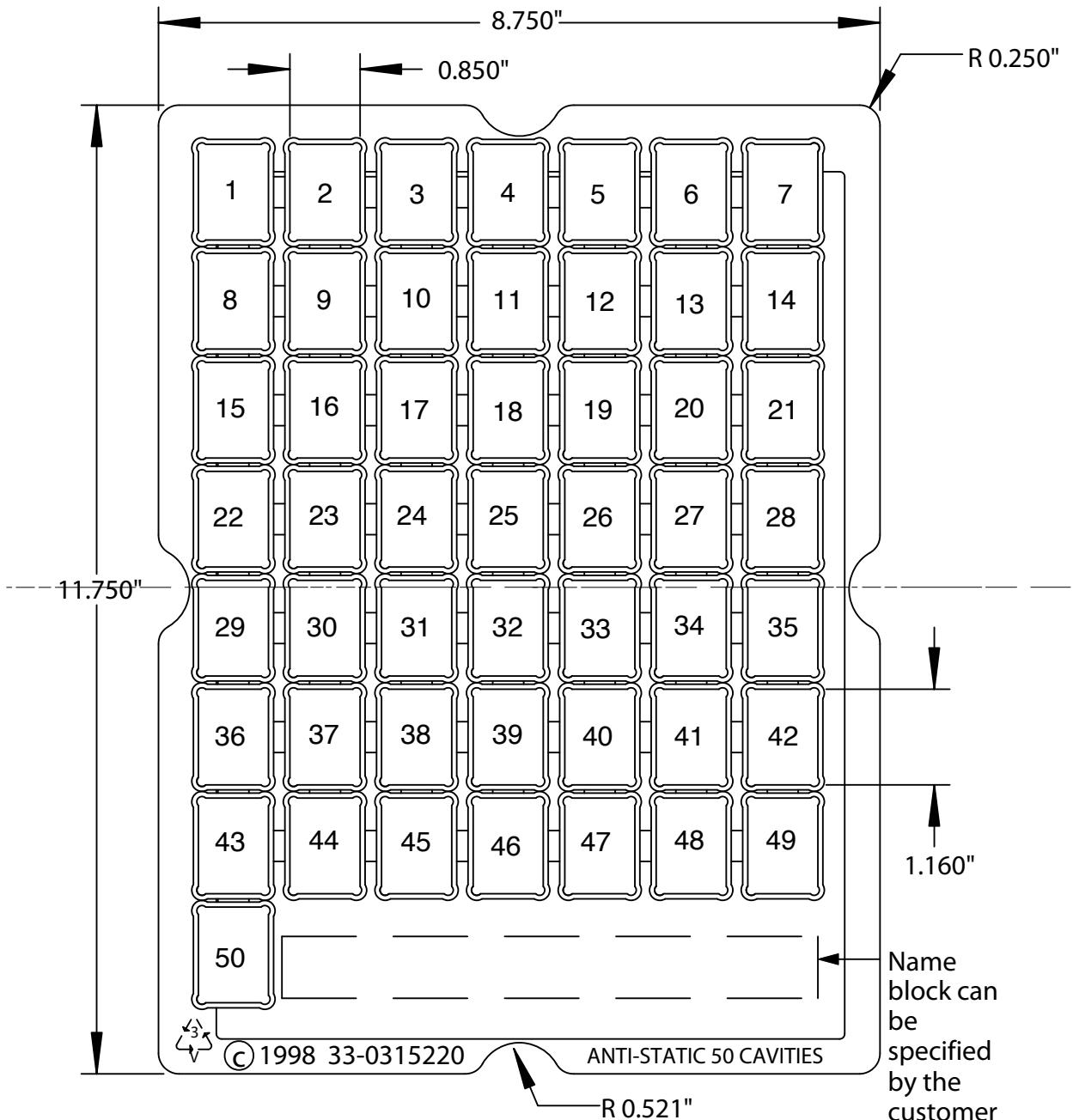
Horizontal

Vertical

Trays

**TY85X116-C**  
 Material: PET (.020 Thick)  
 Rating: Clear, Anti-static to EIA-541  
 Sold Separately

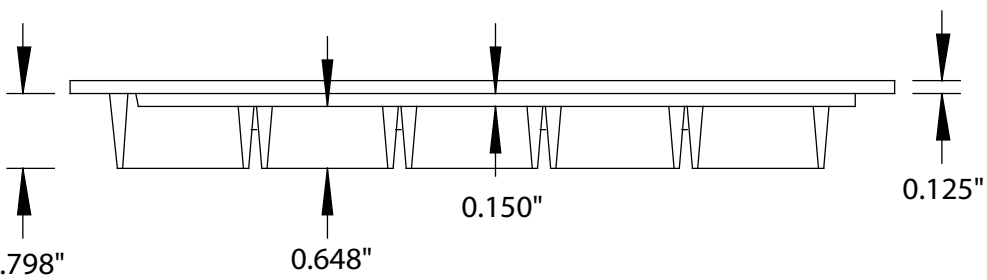
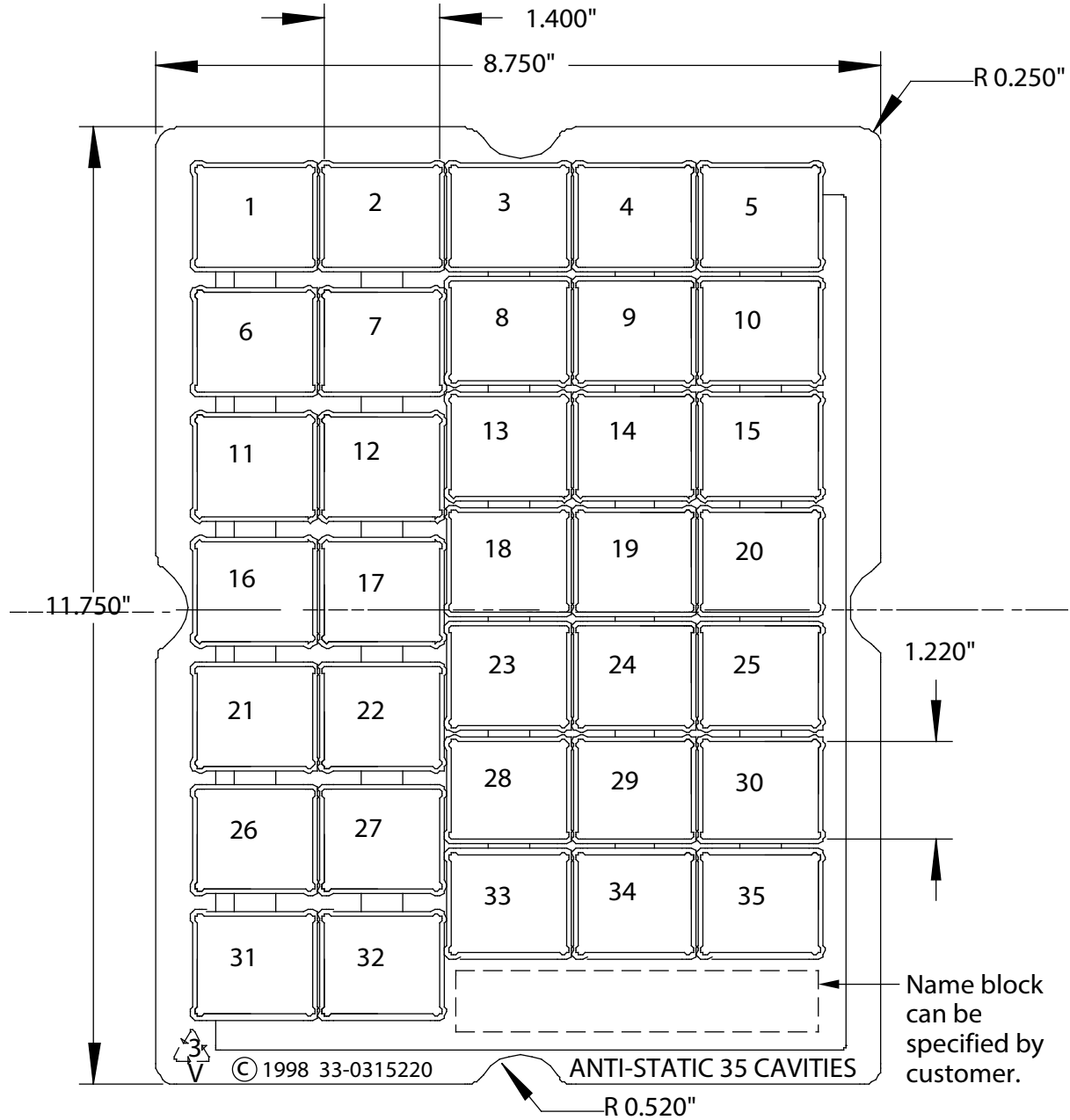
Surface Mount  
Horizontal  
Vertical  
**Trays**



± .010 inches  
 [mm] Not to Scale

TY122X140-C

Material: PET (.020 Thick)  
Rating: Clear, Anti-static to EIA-541  
Sold Separately



± .010 inches  
[mm] Not to Scale

Surface Mount

Horizontal

Vertical

Trays

## TY1000-C

Material: PET (.020 thick)  
Rating: Clear, Anti-static to EIA-541

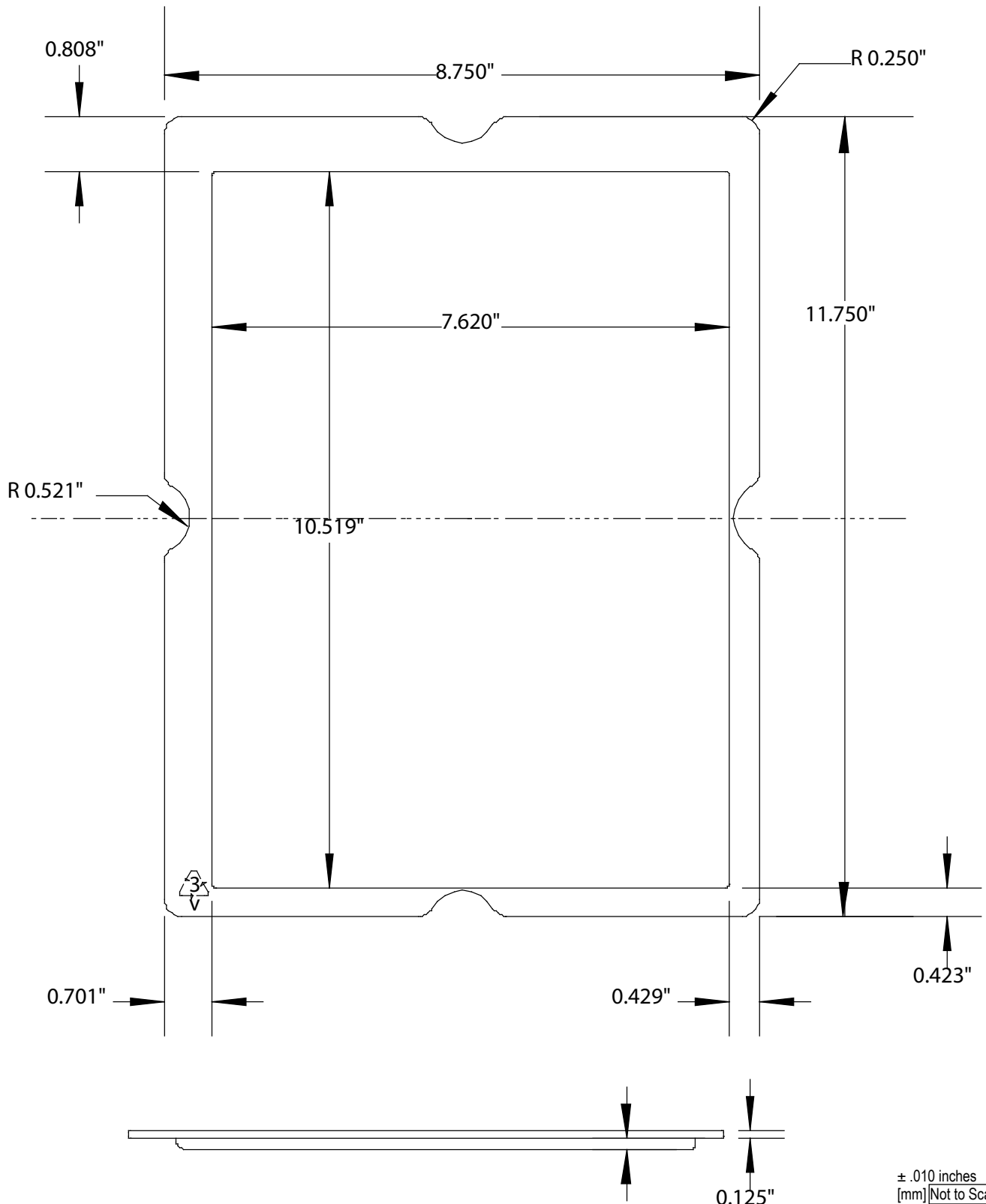
## Cover for all Trays in Series

Surface Mount

Horizontal

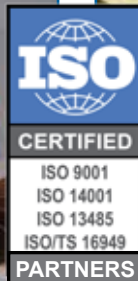
Vertical

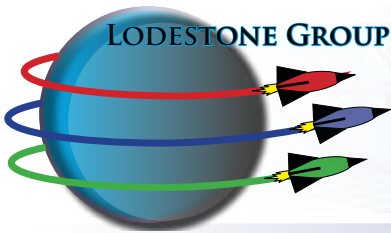
Trays



± .010 inches  
[mm] [Not to Scale]







LODESTONE GROUP

# LODESTONE GROUP

Low Price ● High Quality ● Exceptional Service  
Diverse Skills ● Broad Experience ● Quality Products

## LODESTONE PACIFIC

### Finest In The Field

- Plastic Molded Bobbins
- Plastic Molded Toroid Mounts
- Through Hole and Surface Mount
- Plastic Molded Anti-static Parts Trays
- Terminal Lead Frames and Terminal Pins
- Metal Stamping, Forming and CNC Cutting
- Fair-Rite Products Ferrites
- Micrometals Iron Powder Cores
- Micrometals Alloy Powder Cores
- P. Leo Transformer Insulation Tape
- CAD/CAM Technology
- Custom Plastic Molding
- Cost Effective Custom Tooling
- In-House 3D Printing of Prototypes
- World Class Quality Systems and Logistics



TOROID MOUNTS AND HEADERS



TRANSFORMER TAPE & BOBBINS

## REED-REX

### Distributor of Kofu (OKI) Reed Switches

- High Quality Reed Switches
- 7, 10, 12, 14, 16, & 21 mm sizes
- "Ask the Expert" Technical Support
- Cross Reference to Other Manufacturers
- Reed Switches in Stock and Ready to Ship

### Distributor of Standex-Meder

- Coil Activated Reed Relays
- Custom Plastic Molded Enclosures
- Magnetic Field Activated Reed Sensors
- Sensors & Relays in Stock and Ready to Ship



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### Product Design and Fabrication

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- PCB Design, Fabrication and Stuffing
- CAD/CAM Design and Experience
- In-House 3D Printing of Prototypes
- Bending and Stamping of Metal Parts
- Precision Aluminum & Mg Die Casting
- Custom CNC Fabrication of All Metals
- Electronic and Mechanical Assemblies
- PCB Gerber File Design and Production
- USA & China Quality Control and Inspection
- Warehouse, Logistics & Freight Consolidation

