

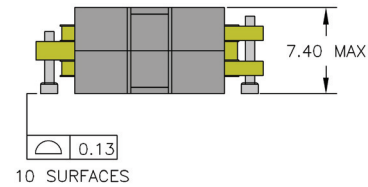
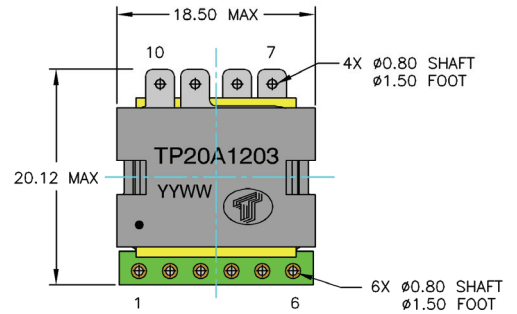
TP20A SERIES

High Frequency 100 Watts
Planar Transformers



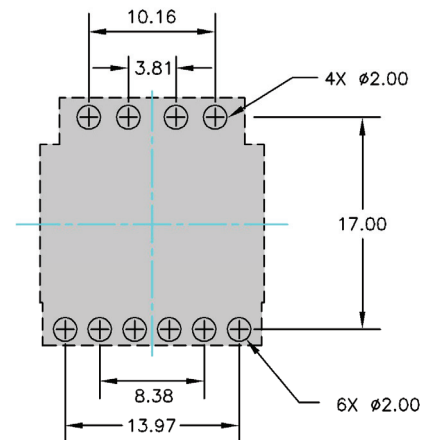
FEATURES

- Power Rating Up to 100 Watts
- High Efficiency
- Footprint 20.12 mm X 18.50 mm
- Lower Profile of 7.4 mm
- High Isolation (operational) 1500 Vdc
- High Frequency 200 kHz – 700 kHz
- Operating Temperature -40° C to +125° C

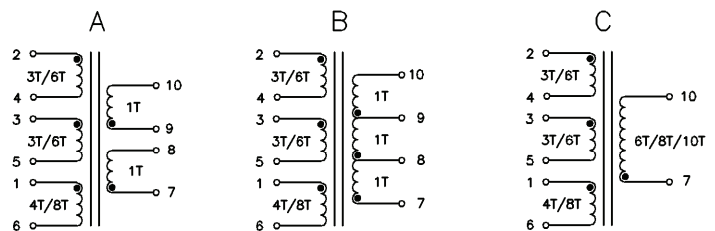


DESCRIPTION

The TP20A series of planar transformers are optimised for power supplies of high performance DC/DC converters. Due to an optimised core, winding geometry and interleaving technology, they are able to offer a high efficiencies up to over 98 percent, high power density of 500 watts per cubic inch, but lower profile of 6.60 mm. The series consist of 12 part numbers, they are intended for use of DC/DC converters with forward, full-bridge, half-bridge and push – pull power supplies. Topologies in application with input voltages between 18 and 75 volts, and output voltages from 18 volts down to 1.2 volts.



Weight 7.60 grams
Tray 50/tray



SCHEMATICS

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ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (m Ω Max)				Turns Ratio		primary Second Hi --Pot	Figure	M. Height
			Primary			Secondary	Primary	Secondary			
			A	B	AUX						
TP20A0601	58.0	0.36	15.0	N/A	55	0.6//0.6	6 T	1T // 1T	1500 VDC	A	7.40 mm Max
TP20A0602	58.0	0.36	15.0	N/A	55	0.6+0.6	6 T	1T+1T			
TP20A0603	58.0	0.36	15.0	N/A	55	2.00	6 T	3 T			
TP20A0606	58.0	0.30	30.0	N/A	110	8.00	6 T	6 T		B	
TP20A0608	58.0	0.30	30.0	N/A	110	12.0	6 T	8 T			
TP20A0610	58.0	0.30	30.0	N/A	110	18.0	6 T	10 T			
TP20A1201	230	0.75	55.0	N/A	180	0.6//0.6	12 T	1T //1T	1500 VDC	A	
TP20A1202	230	0.75	55.0	N/A	180	0.6+0.6	12 T	1T+1T			
TP20A1203	230	0.75	55.0	N/A	180	2.00	12 T	3 T			
TP20A1206	230	0.70	110.0	N/A	360	8.00	12 T	6 T		B	
TP20A1208	230	0.70	110.0	N/A	360	12.0	12 T	8 T			
TP20A1210	230	0.70	110.0	N/A	360	18.0	12 T	10 T			

The following is a matrix of the winding configurations. They are ideally suited to hand between 75-100 watts of power supply on DC-CD converters application.

APPLICATION OF CONFIGURATION					
Part Number	Vin	Vout & Iout	Part Number	Vin	Vout & Iout
TP20A0601	18 – 36 Vdc	1.2V@55.0A --1.8V@50.0A	TP20A1201	36 – 75 Vdc	1.2V@55.0A --1.8V@50.0A
TP20A0602	18 – 36 Vdc	2.5V@34.0A -- 3.3V@30.0A	TP20A1202	36 – 75 Vdc	2.5V@34.0A -- 3.3V@30.0A
TP20A0603	18 – 36 Vdc	5.0 V @ 20 A	TP20A1203	36 – 75 Vdc	5.0 V @ 20 A
TP20A0606	18 – 36 Vdc	8.0V@12.5A -- 10V@10.0A	TP20A1206	36 – 75 Vdc	8.0V@12.5A -- 10V@10.0A
TP20A0608	18 – 36 Vdc	12V@8.33A -- 15V@6.67A	TP20A1208	36 – 75 Vdc	12V@8.33A -- 15V@6.67A
TP20A0610	18 – 36 Vdc	16V@6.25A -- 18V@5.56A	TP20A1210	36 – 75 Vdc	16V@6.25A -- 18V@5.56A

NOTES:

1. The inductance is measured in primary windings Pin (2-5).
2. The leakage inductance is measured in primary winding Pin (2 -5) with all other windings shorted.
3. All specifications typical at T_A=25° C.