

CET-TP20B SERIES

High Frequency 75 Watts
Planar Transformers



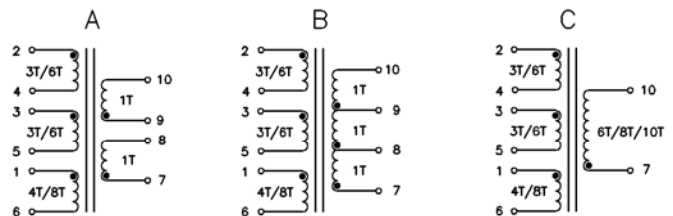
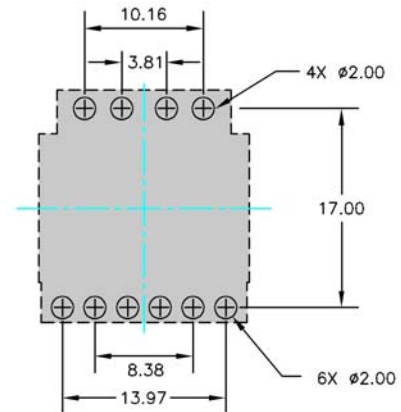
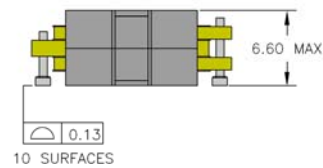
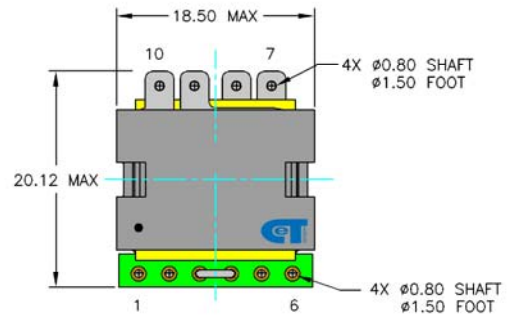
FEATURES

- Power Rating Up to 75 Watts
- High Efficiency of Over 98%
- Footprint 20.30 mm X 18.50 mm
- Lower Profile of 6.6 mm
- High Isolation (operational) 1500 Vdc
- High Frequency 200 kHz – 700 kHz
- Operating Temperature -40° C to +125° C

DESCRIPTION

The TP20B 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 6.80 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						
TP20B0601	50	0.30	20.0	N/A	100	1.5&1.5	6 T	1T // 1T	1500 VDC	6.60 mm Max	A
TP20B0602	50	0.30	20.0	N/A	100	3.00	6 T	1T+1T			B
TP20B0603	50	0.30	20.0	N/A	100	4.5.0	6 T	3 T			C
TP20B0606	50	0.30	40.0	N/A	200	8.50	6 T	6 T			
TP20B0608	50	0.25	40.0	N/A	200	15.0	6 T	8 T			
TP20B0610	50	0.25	40.0	N/A	200	23.0	6 T	10 T			
TP20B1201	200	0.90	70.0	N/A	180	1.5&1.5	12 T	1T // 1T	1500 VDC	6.60 mm Max	A
TP20B1202	200	0.90	70.0	N/A	180	3.00	12 T	1T+1T			B
TP20B1203	200	0.90	70.0	N/A	180	4.5.0	12 T	3 T			C
TP20B1206	200	0.70	140	N/A	360	8.50	12 T	6 T			
TP20B1208	200	0.70	140	N/A	360	15.0	12 T	8 T			
TP20B1210	200	0.70	140	N/A	360	23.0	12 T	10 T			

The following is a matrix of the winding configurations. They are ideally suited to hand between 35-75 watts of power supply on DC-CD converters application.

APPLICATION OF CONFIGURATION					
Part Number	Vin	Vout & Iout	Part Number	Vin	Vout & Iout
TP20B0601	18 – 36 Vdc	1.2V@41.6A --1.8V@37.5A	TP20B1201	36 – 75 Vdc	1.2V@41.6A --1.8V@37.5A
TP20B0602	18 – 36 Vdc	2.5V@25.5A -- 3.3V@22.7A	TP20B1202	36 – 75 Vdc	2.5V@25.5A -- 3.3V@22.7A
TP20B0603	18 – 36 Vdc	5.0 V @ 15 A	TP20B1203	36 – 75 Vdc	5.0 V @ 15 A
TP20B0606	18 – 36 Vdc	8.0V@9.37A -- 10V@7.50A	TP20B1206	36 – 75 Vdc	8.0V@9.37A -- 10V@7.50A
TP20B0608	18 – 36 Vdc	12V@6.25A -- 15V@5.00A	TP20B1208	36 – 75 Vdc	12V@6.25A -- 15V@5.00A
TP20B0610	18 – 36 Vdc	16V@4.68A -- 18V@4.16A	TP20B1210	36 – 75 Vdc	16V@4.68A -- 18V@4.16A

NOTES:

1. The inductance is measured in windings Pin (2-5) at 100 kHz 100 mVrms.
2. The leakage inductance is measured in winding Pin (2 -5) with all other windings shorted.
3. All specifications typical at T_A=25°C.