

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HS-TP14 SERIES

1. FEATURES:

- (1) Power Rating Up to 15 Watts.
- (2) High Efficiency.
- (3) Footprint 14.60 mmX 16.58mm.
- (4) Lower Profile of 5.80mm.
- (5) High Isolation (operational) 1500 Vdc.
- (6) High Frequency 200kHz - 3.0 MHz.
- (7) Operating Temperature -40°C to + 125°C.

2. APPLICATIONS:

The HS-TP 14 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, high power density of 400 watts per cubic inch, lower profile of 5.8mm. The series consist of 12 part numbers, are intended for use of DC-DC converters supply 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.

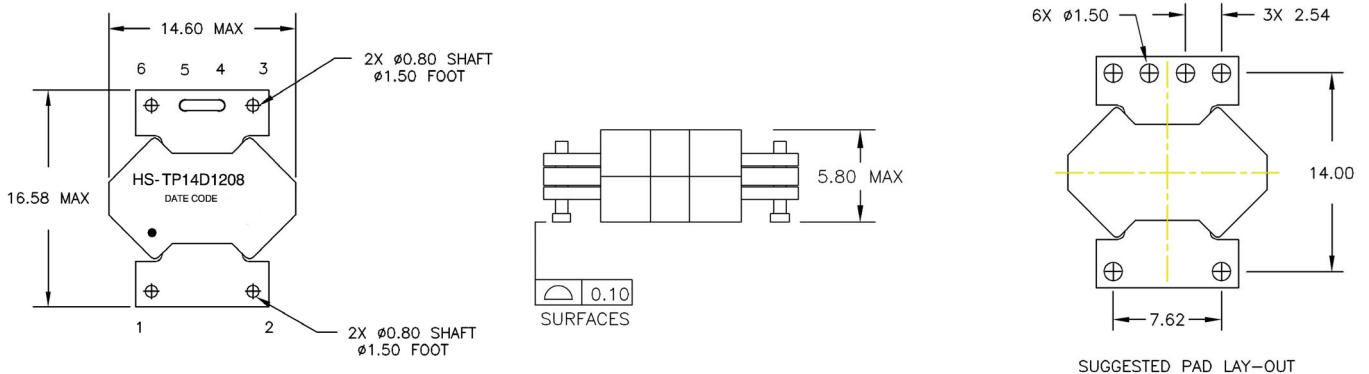
3. PART NUMBER SYSTEM:

HS-TP - 14D - 0601

(1) (2) (3)

- (1) Series name.
- (2) 14D is size.
- (3) 0601 is sequence number.

4. PHYSICAL CHARACTERISTICS:



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5. ELECTRICAL CHARACTERISTICS:

ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (mΩ Max)				Turns Ratio		primary Second Hi --Pot	Figure	M. Height
			Primary			Secondary	Primary	Secondary			
			A	B	AUX						
HS-TP14D0601	30.00	0.50	46.0	N/A	N/A	1.80	6 T	1T // 1T	1500 VDC	A	5.8 mm
HS-TP14D0602	30.00	0.50	46.0	N/A	N/A	3.60	6 T	2 T			
HS-TP14D0603	30.00	0.50	46.0	N/A	N/A	20.0	6 T	3 T			
HS-TP14D0606	30.00	0.45	46.0	N/A	N/A	40.0	6 T	6 T		B	
HS-TP14D0608	30.00	0.45	46.0	N/A	N/A	55.0	6 T	8 T			
HS-TP14D0610	30.00	0.45	46.0	N/A	N/A	100	6 T	10 T			
HS-TP14D1201	120.0	1.00	150	N/A	N/A	1.80	12 T	1T // 1T	1500 VDC	A	5.8 mm
HS-TP14D1202	120.0	1.00	150	N/A	N/A	3.60	12 T	2 T			
HS-TP14D1203	120.0	1.00	150	N/A	N/A	20.0	12 T	3 T			
HS-TP14D1206	120.0	0.95	150	N/A	N/A	40.0	12 T	6 T		B	
HS-TP14D1208	120.0	0.95	150	N/A	N/A	55.0	12 T	8 T			
HS-TP14D1210	120.0	0.95	150	N/A	N/A	100	12 T	10 T			

The following is a matrix of the winding configurations. They are ideally suited to hand between 10 to 15 watts of power supply on DC/CD converters application.

APPLICATION OF CONFIGURATION					
Part Number	Vin	Vout & Iout	Part Number	Vin	Vout & Iout
HS-TP14D0601	18 – 36 Vdc	1.2V@12.5A -- 1.8V@8.33A	HS-TP14D1201	36 – 75 Vdc	1.2V@12.5A -- 1.8V@8.33A
HS-TP14D0602	18 – 36 Vdc	2.5V@6.00A -- 3.3V@4.55A	HS-TP14D1202	36 – 75 Vdc	2.5V@6.00A -- 3.3V@4.55A
HS-TP14D0603	18 – 36 Vdc	5.0 V @ 3.00 A	HS-TP14D1203	36 – 75 Vdc	5.0 V @ 3.00 A
HS-TP14D0606	18 – 36 Vdc	8.0V@1.88A -- 10V@1.50A	HS-TP14D1206	36 – 75 Vdc	8.0V@1.88A -- 10V@1.50A
HS-TP14D0608	18 – 36 Vdc	12V@1.25A -- 15V@1.00A	HS-TP14D1208	36 – 75 Vdc	12V@1.25A -- 15V@1.00A
HS-TP14D0610	18 – 36 Vdc	16V@0.93A -- 18V@0.833A	HS-TP14D1210	36 – 75 Vdc	16V@0.93A -- 18V@0.833A

NOTES:

1. The inductance is measured between Pin (1--2) at 100 kHz, 100 mVrms
2. The leakage inductance is measured in primary winding Pin(1--2) with secondary winding shorted.
3. All specifications typical at T_A=25° C ±5° C.

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5. SCHEMATICS:

