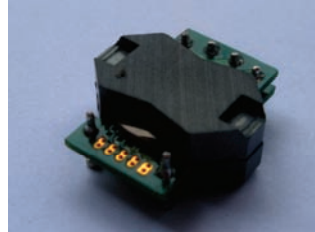




SHAANXI FULLSTAR ELECTRONICS CO., LTD

TI18D SERIES

High Frequency 30 Watts
Planar Transformers

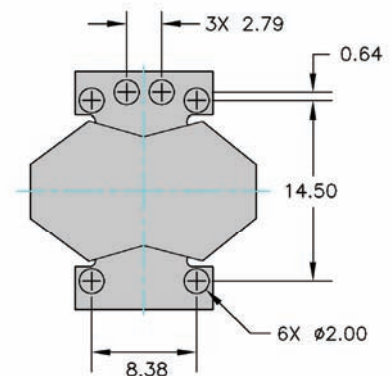
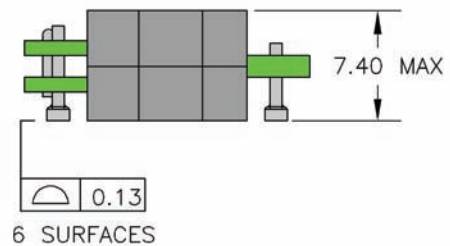
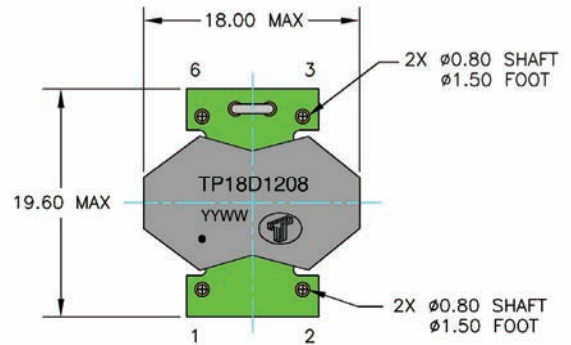


FEATURES

- Power Rating Up to 30 Watts
- High Efficiency
- Footprint 19.6 mm X 18.0 mm
- Lower Profile of 7.4 mm
- High Isolation (operational) 1500 Vdc
- High Frequency 300 kHz – 3.0 MHz
- Operating Temperature -40° C to +125° C

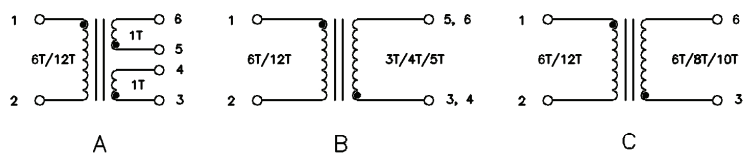
DESCRIPTION

The TP18 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 and high power density of 400 watts per cubic inch, lower profile of 7.4 mm. The series consist of 12 part numbers. They are intended for use in DC/DC converter with forward, full-bridge, half-bridge and push-pull and power supplies. Topologies in application with input voltages between 18 and 75 volts, and output voltages from 18 volts down to 1.2 volts.



SUGGESTED PAD LAY-OUT

Weight5.30 grams
Tray.....60/tray



SCHEMATICS

TP18D SERIES

High Frequency 30 Watts
Planar Transformers

ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹	Leakage ²	DC Resistance (m Ω Max)				Turns	Ratio	primary Second Hi --Pot	Figure	M. Height
	Inductance (uH Min)	Inductance (uH Max)	Primary			Secondary	Primary	Secondary			
			A	B	AUX						
TP18D0601	48.0	0.50	50.0	N/A	N/A	1.50	6 T	1T // 1T	1500 VDC	A	7.4 mm
TP18D0602	48.0	0.50	50.0	N/A	N/A	3.00	6 T	1T+1T		B	
TP18D0603	48.0	0.40	50.0	N/A	N/A	20.0	6 T	3 T		C	
TP18D0606	48.0	0.40	50.0	N/A	N/A	40.0	6 T	6 T			
TP18D0608	48.0	0.30	50.0	N/A	N/A	60.0	6 T	8 T			
TP18D0610	48.0	0.30	50.0	N/A	N/A	80.0	6 T	10 T			
TP18D1201	190	1.50	156	N/A	N/A	1.50	12 T	1T // 1T	1500 VDC	A	7.4 mm
TP18D1202	190	1.50	156	N/A	N/A	3.00	12 T	1T+1T		B	
TP18D1203	190	1.30	156	N/A	N/A	20.0	12 T	3 T		C	
TP18D1206	190	1.30	156	N/A	N/A	40.0	12 T	6 T			
TP18D1208	190	1.15	156	N/A	N/A	60.0	12 T	8 T			
TP18D1210	190	1.15	156	N/A	N/A	80.0	12 T	10 T			

The following is a matrix of the winding configurations. They are ideal for used in power supply of DC/CD converters application between 15-30 watts

APPLICATION OF CONFIGURATION					
Part Number	Vin	Vout & Iout	Part Number	Vin	Vout & Iout
TP18S0601	18 – 36 Vdc	1.2V@25.0A --1.8V@16.7A	TP18S1201	36 – 75 Vdc	1.2V@25.0A --1.8V@16.7A
TP18S0602	18 – 36 Vdc	2.5V@12.0A -- 3.3V@9.00A	TP18S1202	36 – 75 Vdc	2.5V@12.0A -- 3.3V@9.00A
TP18D0603	18 – 36 Vdc	5.0 V @ 6 A	TP18D1203	36 – 75 Vdc	5.0 V @ 6 A
TP18D0606	18 – 36 Vdc	8.0V@3.75A -- 10V@3.00A	TP18D1206	36 – 75 Vdc	8.0V@3.75A -- 10V@3.00A
TP18D0608	18 – 36 Vdc	12V@2.50A -- 15V@2.00A	TP18D1208	36 – 75 Vdc	12V@2.50A -- 15V@2.00A
TP18D0610	18 – 36 Vdc	16V@1.88A -- 18V@1.67A	TP18D1210	36 – 75 Vdc	16V@1.88A -- 18V@1.67A

NOTES:

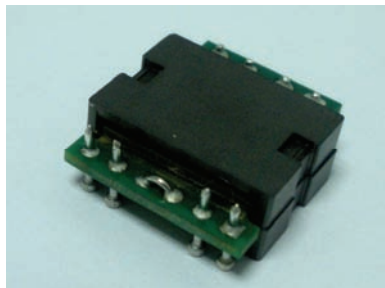
1. The inductance is measured in primary windings Pin (1-2) at 100 kHz 100 mVrms.
2. The leakage inductance is measured in primary winding Pin (1 -2) with all other windings shorted.
3. All specifications typical at T_A=25° C.



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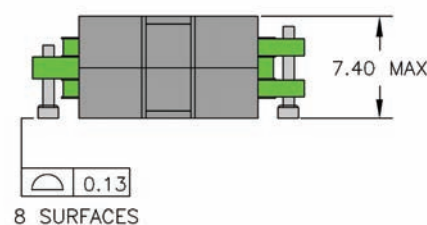
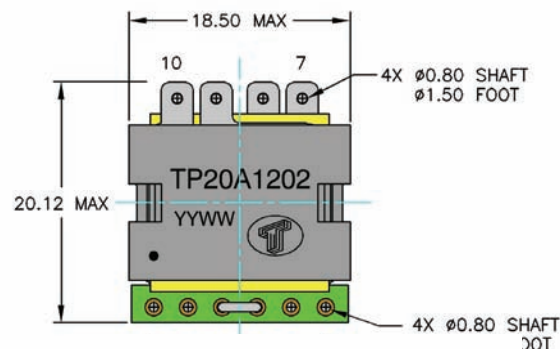
TP20A SERIES

High Frequency 100 Watts
Planar Transformers



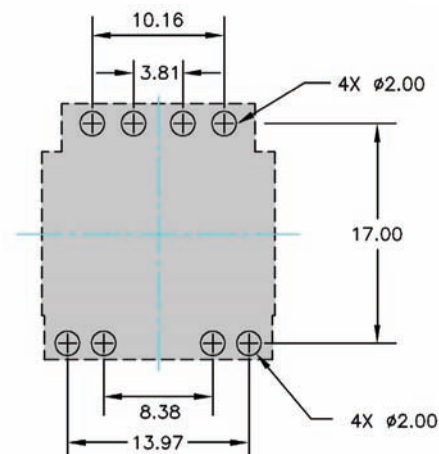
FEATURES

- 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

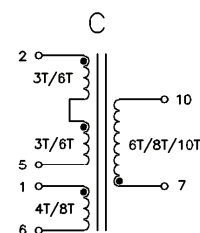
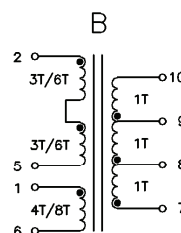
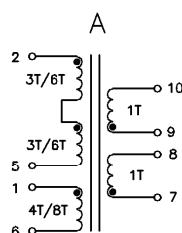


DESCRIPTION

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

TP20A SERIES

High Frequency 100 Watts
Planar Transformers

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		B		
TP20A0603	58.0	0.36	15.0	N/A	55	2.00	6 T	3 T		C		
TP20A0606	58.0	0.30	30.0	N/A	110	8.00	6 T	6 T				
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	1500 VDC	A		
TP20A1201	230	0.75	55.0	N/A	180	0.6//0.6	12 T	1T //1T		B		
TP20A1202	230	0.75	55.0	N/A	180	0.6+0.6	12 T	1T+1T				C
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				
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:

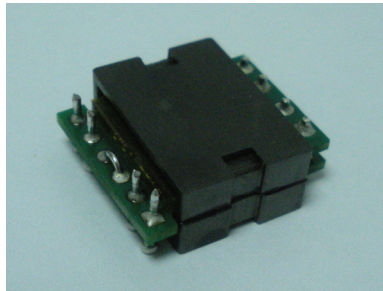
1. The inductance is measured in primary windings Pin (2-5).
2. The leakage inductance is measured in primary winding Pin (2 -5) with all other windings shorted.
3. All specifications typical at T_A=25° C.



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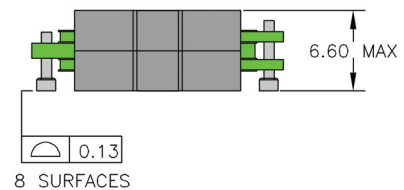
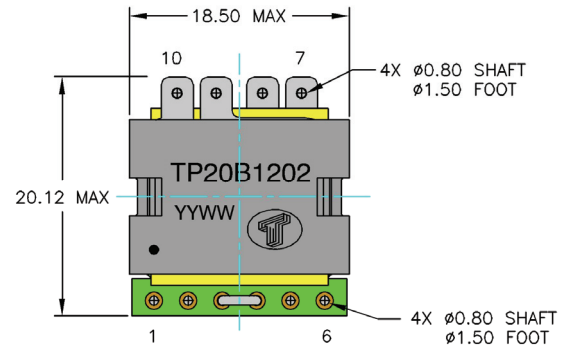
TP20B SERIES

High Frequency 75 Watts
Planar Transformers



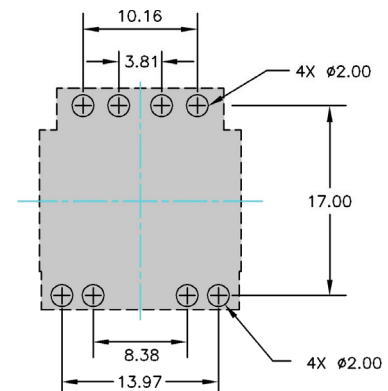
FEATURES

- 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



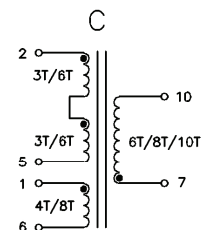
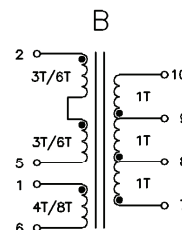
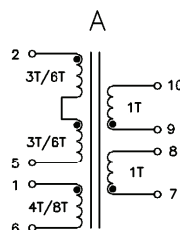
DESCRIPTION

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.



SUGGESTED PAD LAY-OUT

Weight 6.80 grams
Tray 50/tray



SCHEMATICS

TP20B SERIES

High Frequency 75 Watts
Planar Transformers

ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹	Leakage ²	DC Resistance (m Ω Max)				Turns Ratio		primary Second Hi --Pot	Figure	M. Height
	Inductance (uH Min)	Inductance (uH Max)	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	A	6.60 mm Max
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	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			
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:

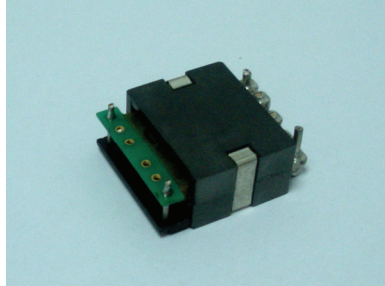
1. The inductance is measured in windings Pin (2-5) at 100 kHz 100 mVrms.
2. The leakage inductance is measured in winding Pin (2 -5) with all other windings shorted.
3. All specifications typical at T_A=25° C.



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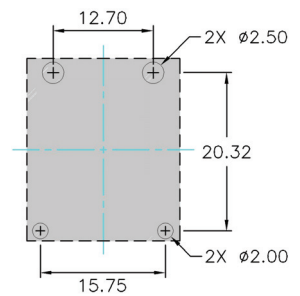
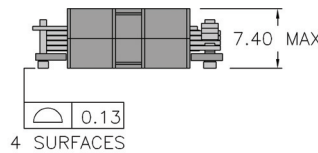
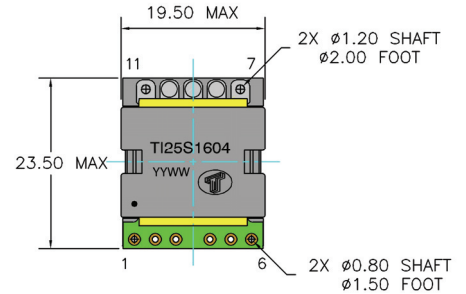
TI25 SERIES

SMT High Current
Planar Inductors



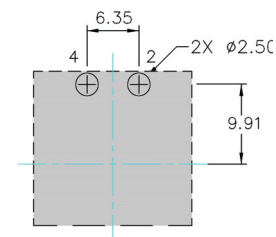
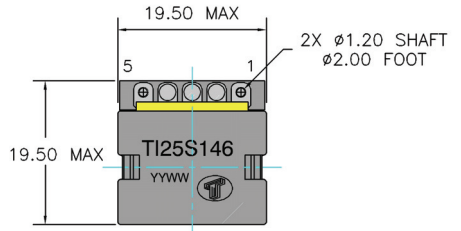
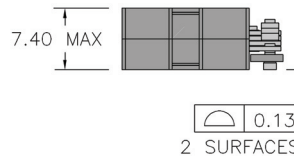
FEATURES

- High Thermal Efficiency & Energy Storage,
- High Current Rating Up to 73 Amps,
- Lower Profile of 7.4 mm Max.
- Wider Flexibility of Inductances
- Footprint 23.50 mm X 19.50 mm
- Operating Temperature -40° C to +130° C

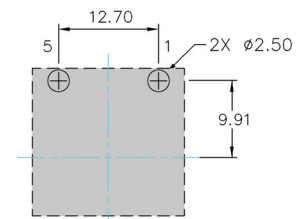


DESCRIPTION

The TI25 series of planar inductors are optimised for DC/DC power supplies of high current. Due to a lead-free constructions, they are able to offer high thermal efficiency and high current handling with the lowest DCR ratings. The main windings inductor serves as an output choke, while the auxiliary windings controls input current to the PWM (TI25S1604). Application also include power systems for telecommunications, industrial control systems, automotive and heavy equipment vehicle systems where desired to high density and high energy efficiency.

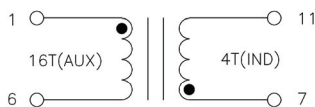


SUGGESTED PAD LAY-OUT

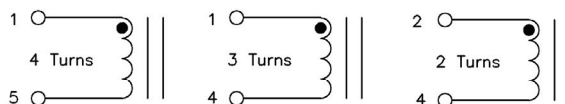


SUGGESTED PAD LAY-OUT

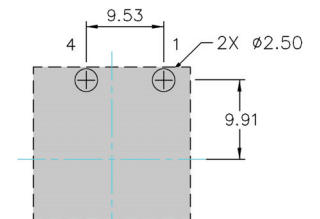
Weight11.8 grams
Tray 40/tray



SCHEMATIC



SCHEMATIC



SUGGESTED PAD LAY-OUT

TI25 SERIES

SMT High Current
Planar Inductors

ELECTRICAL SPECIFICATIONS											
Part Number	Inductance ¹ @ 0 Adc ($\mu\text{H} \pm 10\%$)	Inductance ¹ @ Irated ($\mu\text{H} \pm 15\%$)	Irated ² A dc	DCR (m Ω Max)		Turns Ratio		Main Aux. Hi-Pot	Isaturation ³ (Amps)		Iheating ⁴ (Amps)
				Main	Aux	Main	Aux.		@25° C	@100° C	
TI25S1604	2.10	2.00	30.0	2.0	1500	4	16	1500	45	40	37.0
2 1/2 Turns											
TI25D221	0.46	0.45	73.0	0.40	N/A	2	N/A	N/A	95	80	73
TI25D222	0.67	0.63	55.0	0.40	N/A	2	N/A	N/A	63	53	73
TI25D223	0.90	0.85	39.0	0.40	N/A	2	N/A	N/A	46	37	73
TI25D224	1.12	1.05	30.0	0.40	N/A	2	N/A	N/A	35	30	73
TI25D225	1.35	1.25	25.0	0.40	N/A	2	N/A	N/A	29	26	73
TI25D226	1.56	1.45	21.0	0.40	N/A	2	N/A	N/A	24	22	73
2 Turns											
TI25S121	0.46	0.45	53.0	0.80	N/A	2	N/A	N/A	95	80	52
TI25S122	0.67	0.63	52.0	0.80	N/A	2	N/A	N/A	63	53	52
TI25S123	0.90	0.85	39.0	0.80	N/A	2	N/A	N/A	46	37	52
TI25S124	1.12	1.05	30.0	0.80	N/A	2	N/A	N/A	35	30	52
TI25S125	1.35	1.25	26.0	0.80	N/A	2	N/A	N/A	29	26	52
TI25S126	1.56	1.45	22.0	0.80	N/A	2	N/A	N/A	24	22	52
3 Turns											
TI25S131	1.00	0.95	42.0	1.20	N/A	3	N/A	N/A	68	54	42
TI25S132	1.50	1.45	36.0	1.20	N/A	3	N/A	N/A	43	35	42
TI25S133	2.00	1.95	25.0	1.20	N/A	3	N/A	N/A	29	25	42
TI25S134	2.50	2.45	20.0	1.20	N/A	3	N/A	N/A	23	21	42
TI25S135	3.00	2.85	15.0	1.20	N/A	3	N/A	N/A	18	16	42
TI25S136	3.50	3.45	12.0	1.20	N/A	3	N/A	N/A	15	13	42
4 Turns											
TI25S141	1.78	1.65	37.0	1.60	N/A	4	N/A	N/A	55	43	37
TI25S142	2.66	2.45	30.0	1.60	N/A	4	N/A	N/A	35	27	37
TI25S143	3.55	3.35	17.0	1.60	N/A	4	N/A	N/A	20	18	37
TI25S144	4.45	4.00	14.0	1.60	N/A	4	N/A	N/A	16	15	37
TI25S145	5.33	4.85	11.0	1.60	N/A	4	N/A	N/A	13	12	37
TI25S146	6.21	5.80	9.0	1.60	N/A	4	N/A	N/A	11	10	37

NOTES:

- Inductance of TI25S1604 measured on Agilent/HP4284 between pins 7 & 11 at 100 kHz, 0.1 Vrms.
- The Irated is either 85% of the Isaturation or the Iheating depending which is lower.
- The Isaturation is the current which causes the inductance to drop by 15% of its nominal value.
- The Iheating is the current which causes the temperature of the part to increase by approximately 45° C.



SHAANXI FULLSTAR ELECTRONICS CO., LTD

TP30 SERIES

High Frequency 300 Watts
Planar Transformers



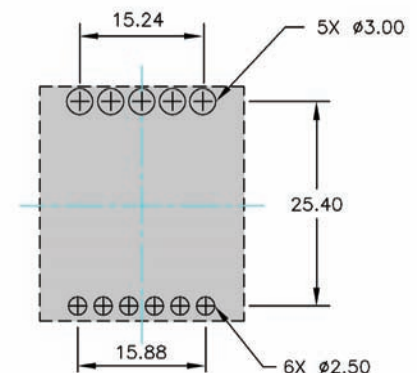
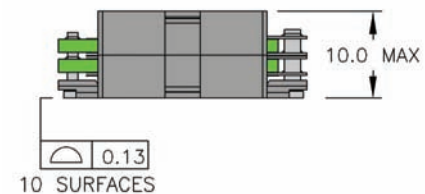
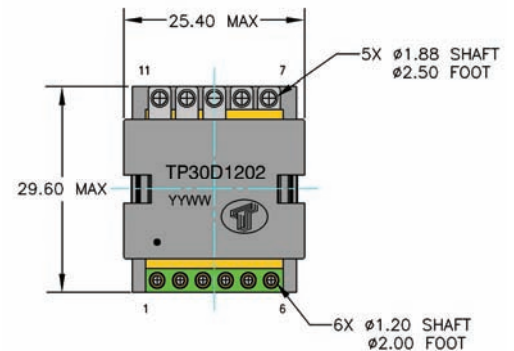
FEATURES

- Power Rating Up to 300 Watts
- High Efficiency of Over 98%
- High Power Density of 600 Watts Per Cubic Inch
- Footprint 29.6 mm X 25.4 mm
- Lower Profile of 9.0 mm and 10.0 mm
- High Isolation (operational) 1800 Vdc
- High Frequency 200 kHz – 700 kHz
- Operating Temperature -40° C to +125° C

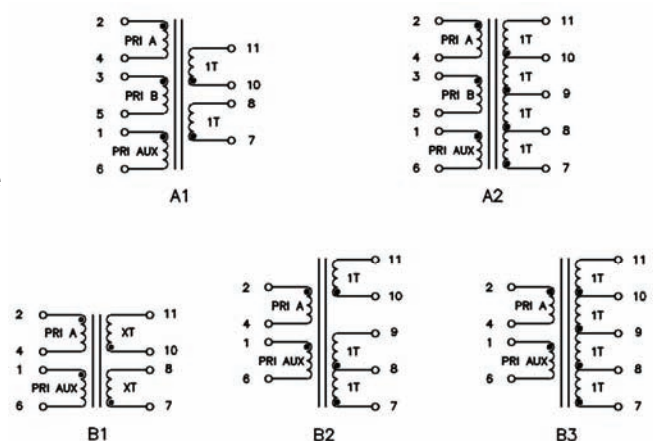
DESCRIPTION

The TP30 series of planar transformers are optimised for power supplies of high performance DC/DC. 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 600 watts per cubic inch, but lower profile of 9.0 mm and 10.0 mm . The series consist of 30 part numbers, off-the-shelf catalog parts can be arranged to 163 different winding configurations. Adding a primary auxiliary winding or a small gap to the transformer, they will be more expanding of configurations. The series are intended for use of DC-DC converter 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 52 volts down to 1.xx volts.

Weight..... 20.00 grams
Tray.....30/tray



SUGGESTED PAD LAY-OUT



SCHEMATICS

TP30 SERIES

High Frequency 300 Watts
Planar Transformers

ELECTRICAL SPECIFICATIONS														
Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (m Ω Max)			Secondary	Turns Ratio		Pri/Sec Hi-Pot	Figure	M. Height			
			Primary				Primary	Secondary						
			A	B	AUX.									
TP30S0402	54.00	0.30	10			1.20&1.20	4T	1T & 1T	1500 Vdc	B1	9.00 mm Max.			
TP30S0502	83.00	0.30	12		468		5T (5T/aux)							
TP30S0602	121.0	0.30	20		154		6T (2T/aux.)							
TP30S0702	166.0	0.30	48		158		7T (3T/aux.)							
TP30S0802	216.0	0.30	58				8T							
TP30S0403	54.00	0.30	10			1.80&0.60	4T	2T & 1T		B2				
TP30S0503	83.00	0.30	12		468		5T (5T/aux)							
TP30S0603	121.0	0.30	20		154		6T (2T/aux.)							
TP30S0703	166.0	0.30	48		158		7T (3T/aux.)							
TP30S0803	216.0	0.30	58				8T							
TP30S0404	54.00	0.30	10			4.8	4T	4T (1T:1T:1T:1T)		B3				
TP30S0504	83.00	0.30	12		468		5T (5T/aux)							
TP30S0604	121.0	0.30	20		154		6T (2T/aux.)							
TP30S0704	166.0	0.30	48		158		7T (3T/aux.)							
TP30S0804	216.0	0.30	58				8T							
TP30S0414	54.00	0.30	10			42&42	4T	7T & 7T		B1				
TP30S0514	83.00	0.30	12		468		5T (5T/aux)							
TP30S0614	121.0	0.30	20		154		6T (2T/aux.)							
TP30S0714	166.0	0.30	48		158		7T (3T/aux.)							
TP30S0814	216.0	0.30	58				8T							
TP30D0802	216.0	0.30	10	10		0.60&0.60	4T&4T	1T & 1T		A1	10.00 mm Max.			
TP30D1002	338.0	0.30	12	12	233		5T&5T (5T/aux)							
TP30D1202	486.0	0.30	20	20	76		6T&6T (2T/aux)							
TP30D1402	661.0	0.30	48	48	78		7T&7T (3T/aux)							
TP30D1602	864.0	0.30	58	58			8T&8T							
TP30D0804	216.0	0.30	10	10		4.8	4T&4T	4T (1T:1T:1T:1T)		A2				
TP30D1004	338.0	0.30	12	12	233		5T&5T (5T/aux)							
TP30D1204	486.0	0.30	20	20	76		6T&6T (2T/aux)							
TP30D1404	661.0	0.30	48	48	78		7T&7T (3T/aux)							
TP30D1604	864.0	0.30	58	58			8T&8T							

NOTES:

- 1.The inductance is measured with both primary windings connected in series where applicable (type D: 2 to 5 with 3 and 4 shorted, type S: 2 to 4 only)..
- 2.The leakage inductance is measured with both primary windings connected in series where applicable in all other winding shorted.
- 3.All specifications typical at T_A=25° C.



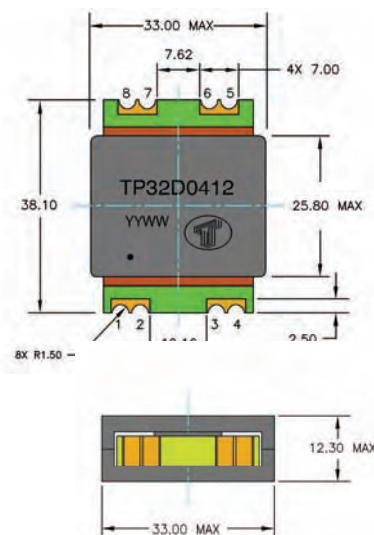
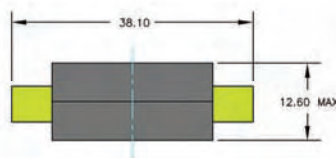
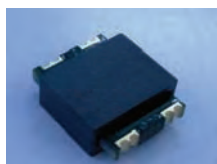
SHAANXI FULLSTAR ELECTRONICS CO., LTD

TP32 SERIES

High Frequency 1.2kWatts
Planar Transformers

FEATURES

- Power Rating Up to 1200 Watts
- High Efficiency of Over 99.0%
- High Frequency 100 kHz – 500 kHz
- Footprint 52.0 mm X 33.0 mm
- Lower Profile of 12.3 mm Max
- High Isolation (operational) 5000 Vdc
- Operating Temperature -40° C to +125° C



ELECTRICAL SPECIFICATIONS

Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (m Ω Max)				Turns Ratio		Pri/Sec Hi-Pot	Figure	M. Height
			Primary			Secondary					
			A	B	AUX.		Primary	Secondary			
TP32D0412	9.0±10%	0.06	2.60			25.0	4T	12T	1500Vdc	1	12.30 MAX.
TP32D0404	48.00	0.60	4.00		4T	2.00	4T	4T	2000Vdc	2	
TP32D1605	760.0	0.30	60.0		16T	3.30	16T	5T	5000Vdc	3	
TP32D2402	1700	0.40	90.0			0.36	24T	2T	5000Vdc	4	

1.The inductance is measured in primary windings.

2.The leakage inductance is measured in primary windings with secondary windings shorted.

3.All specifications typical at T_A=25° C.

APPLICATION OF CONFIGURATION

Part Number	Vinput	Vout & Iout	Part Number	Vinput	Vout & Iout
TP32D0412	6 – 32 Vdc	180Vdc@5.0A	TP32D1605	180 – 350 Vdc	25.0Vdc@20.0A
TP32D0404	36 – 75 Vdc	15.0Vdc@32.0A	TP32D2402	380 – 410 Vdc	12.0Vdc@100.0A

TP32 SERIES

High Frequency 1.2kWatts
Planar Transformers

SCHEMATICS

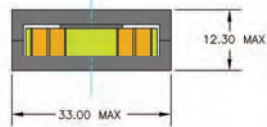
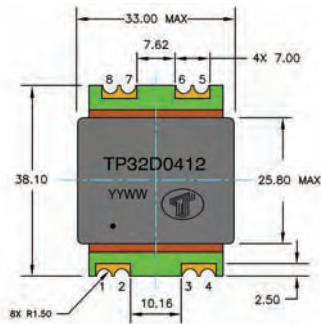
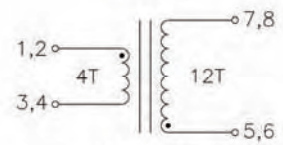


FIGURE 1



TP32D0412
(Flyback)

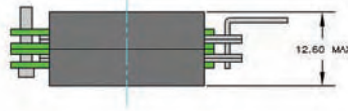
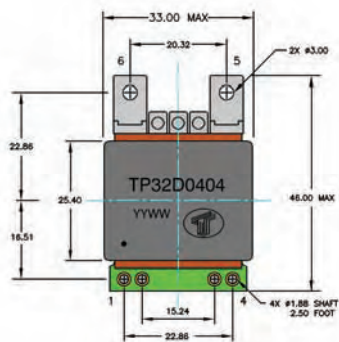
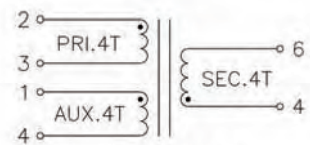


FIGURE 2



TP32D0404
(Forward)

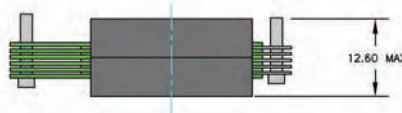
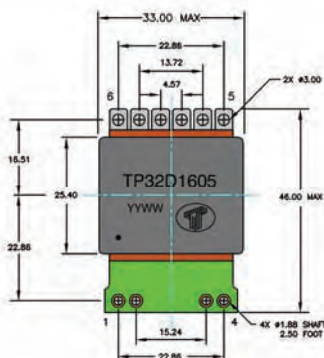


FIGURE 3



TP32D1605
(Forward)

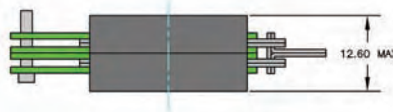
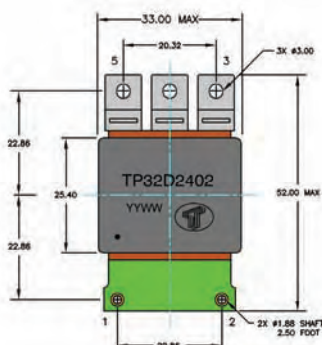
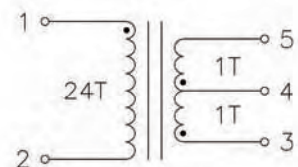


FIGURE 4



TP32D2402
(Full Bridge)



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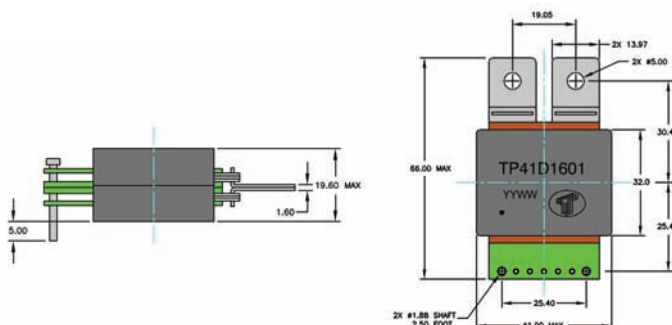
TP41 SERIES

High Frequency 2.2kWatts
Planar Transformers



FEATURES

- Power Rating Up to 2200 Watts
- High Efficiency of Over 98.x%
- High Frequency 50 kHz – 200 kHz
- Footprint 66.00 mm X 41.00 mm
- Lower Profile of 19.60 mm Max
- High Isolation (operational) 5000 Vdc
- Operating Temperature -40° C to +125° C



ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (m Ω Max)				Turns Ratio		Pri/Sec Hi-Pot	Figure	M. Height
			Primary			Secondary					
			A	B	AUX.		Primary	Secondary			
TP41D1601	1350	1.00	30.0			0.10	16T	1T	5000Vdc	1	
TP41D1201	750.0	0.60	25.0			0.10	12T	1T	5000Vdc	1	
TP41D0302	47.0	0.30	0.70			0.25	3T	2T	500Vdc	2	
TP41D1202	750.0	0.60	25.0			0.25	12T	2T	5000Vdc	3	
TP41D2402	3000	1.60	75.0			0.25	24T	2T	5000Vdc	4	
TP41D1403	1000	0.70	30.0			0.70	14T	3T	5000Vdc	5	
TP41D1204	750.0	0.60	25.0			1.60	12T	4T	5000Vdc	6	
TP41D0805	330.0	0.36	5.00			3.00	8T	5T	500Vdc	7	
TP41D1205	750.0	0.60	25.0			3.00	12T	5T	5000Vdc	8	
TP41D1206	750.0	0.60	25.0			3.60	12T	6T	5000Vdc	8	

- 1.The inductance is measured in primary windings.
- 2.The leakage inductance is measured in primary windings with secondary windings shorted.
- 3.All specifications typical at T_A=25° C.

APPLICATION OF CONFIGURATION					
Part Number	Vinput	Vout & Iout	Part Number	Vinput	Vout & Iout
TP41D1601	180 – 320 Vdc	3.30Vdc@240.0A	TP41D1403	180 – 320 Vdc	15.0Vdc@65.0A
TP41D1201	180 – 320 Vdc	5.0Vdc@180.0A	TP41D1204	180 – 320 Vdc	24.0Vdc@42.0A
TP41D0302	90 – 160 Vdc	12.0Vdc@180.0A	TP41D0805	120 – 200 Vdc	28.0Vdc@ 36.0A
TP41D1202	180 – 320 Vdc	12.0Vdc@85.00A	TP41D1205	180 – 320 Vdc	28.0Vdc@36.0A
TP41D2402	380 – 410 Vdc	12.0Vdc@185.0A	TP41D1206	180 – 320 Vdc	34.0Vdc@29.5A

TP41 SERIES

High Frequency 2.2kWatts
Planar Transformers

SCHEMATICS

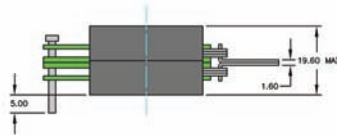
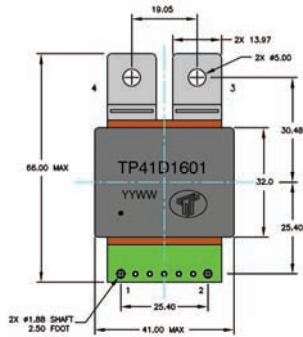


FIGURE 1

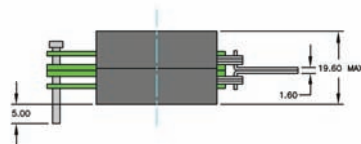
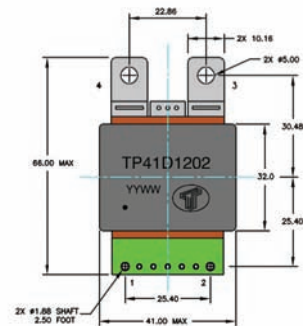
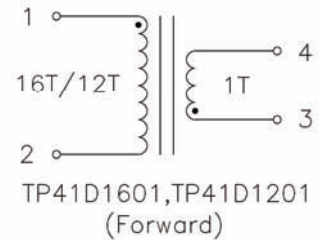


FIGURE 2

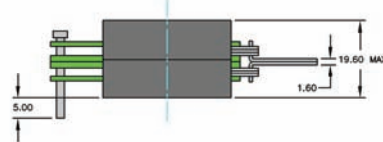
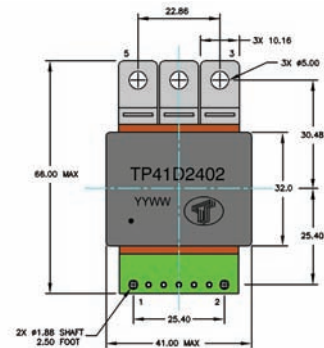
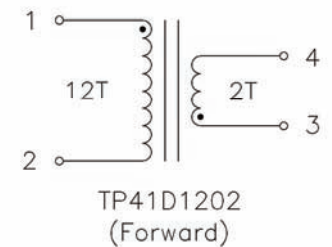


FIGURE 3

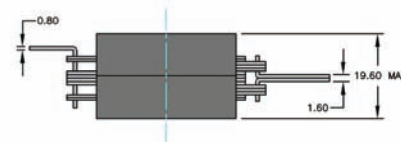
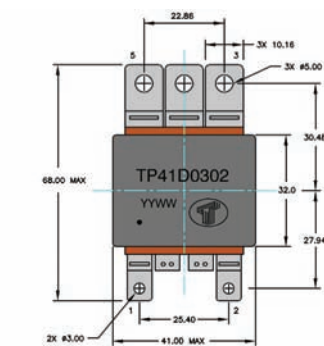
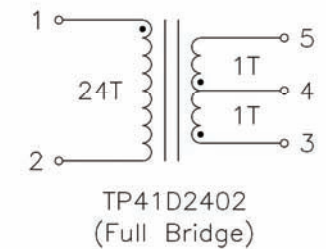
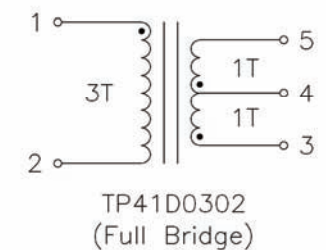


FIGURE 4



TP41 SERIES

High Frequency 2.2kWatts
Planar Transformers

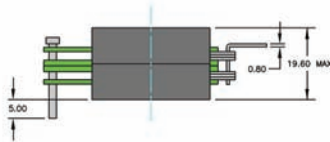
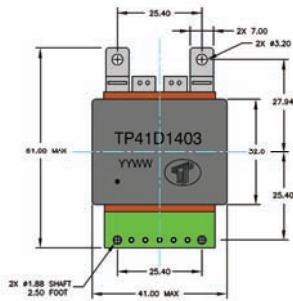
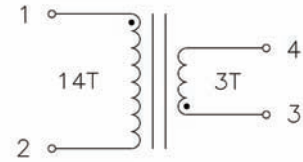


FIGURE 5



TP41D1403
(Forward)

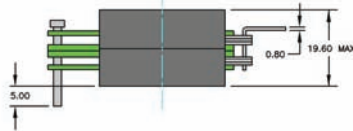
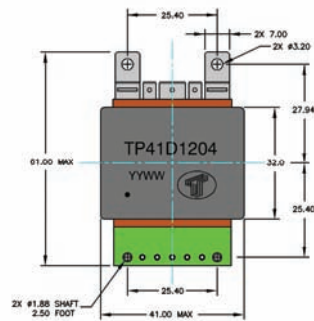
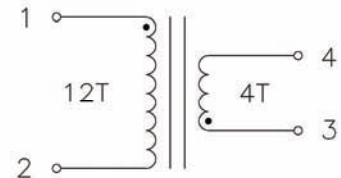


FIGURE 6



TP41D1204
(Forward)

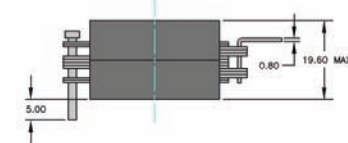
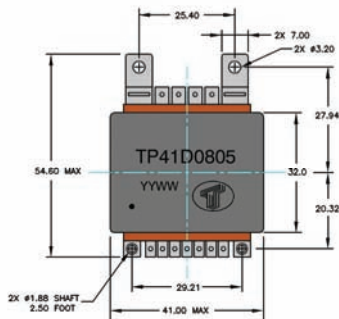
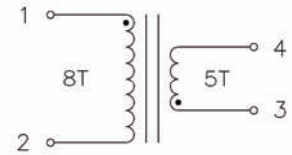


FIGURE 7



TP41D0805
(Forward)

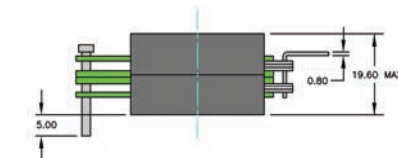
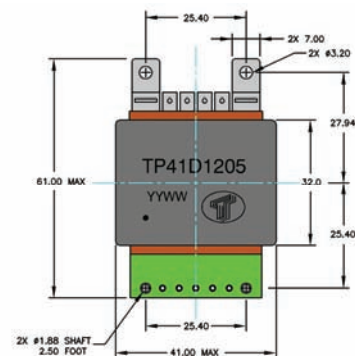
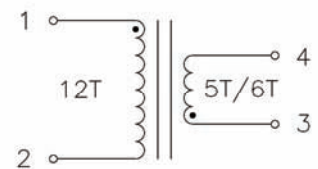


FIGURE 8



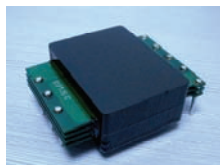
TP41D1205, TP41D1206
(Forward)



SHAANXI FULLSTAR ELECTRONICS CO., LTD

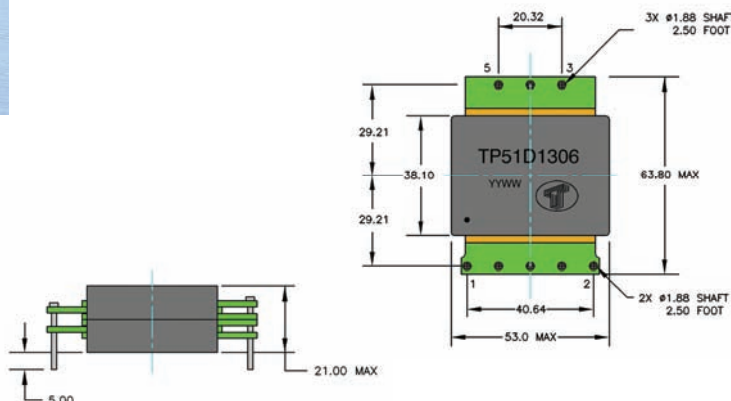
TP51 SERIES

High Frequency 5.6KWatts
Planar Transformers



FEATURES

- Power Rating Up to 5600 Watts
- High Efficiency of Over 99.x%
- High Frequency 50 kHz – 200 kHz
- Footprint 80.0 mm X 53.0 mm
- Lower Profile of 21.0 mm Max
- High Isolation (operational) 5000 Vdc
- Operating Temperature -40° C to +125° C



ELECTRICAL SPECIFICATIONS

Part Number	Primary ¹ Inductance (uH Min)	Leakage ² Inductance (uH Max)	DC Resistance (m Ω Max)				Turns Ratio		Pri/Sec Hi-Pot	Figure	M. Height
			Primary			Secondary					
			A	B	AUX.		Primary	Secondary			
TI5120-1R1	1.1 ± 10%	6.00	0.36			160/160	2T	26T/26T	1500Vdc	1	21.00 mm MAX.
TP51D0402	30.0	0.30	2.00			0.20	4T	2T	4000Vdc	2	
TP51D0404	30.0	0.30	0.30			0.30	4T	4T	500Vdc	3	
TP51D0804	460.0	0.40	6.00			0.30	8T	4T	4000Vdc	4	
TP51D0808	460.0	0.40	6.00			6.00	8T	8T	4000Vdc	5	
TP51D1002	760.0	0.50	10.00			0.20	10T	2T	1500Vdc	6	
TP51D0213	7.00	1.00	0.36			18.0	2T	13T	1500Vdc	7	
TP51D1306	1200	0.60	25.0			2.30	13T	6T	1500Vdc	8	

1.The inductance is measured in primary windings.

2.The leakage inductance is measured in primary windings with secondary windings shorted.

3.All specifications typical at T_A=25° C.

APPLICATION OF CONFIGURATION

Part Number	Vinput	Vout & Iout	Part Number	Vinput	Vout & Iout
TI5120-1R1	18 – 40 Vdc	195Vdc@10A/390Vdc@5.0A	TP51D0808	500 – 750 Vdc	200.0Vdc@30.0A
TP51D0402	125 – 165 Vdc	24.0Vdc@230.0A	TP51D1002	220 – 320 Vdc	15.0Vdc@300.0A
TP51D0404	36 – 75 Vdc	28.0Vdc@71.50A	TP51D0213	18 – 40 Vdc	200Vdc@ 10.0A
TP51D0804	125 – 165 Vdc	28.0Vdc@65.00A	TP51D1306	365 – 410 Vdc	54.6Vdc@35.0A

TP51 SERIES

High Frequency 5.6KWatts
Planar Transformers

SCHEMATICS

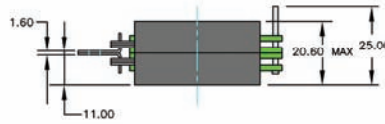
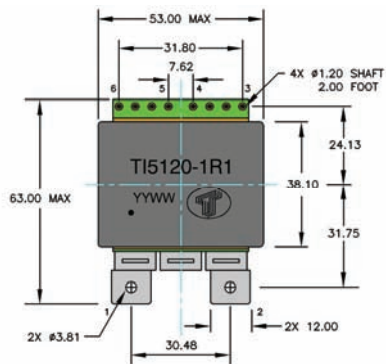
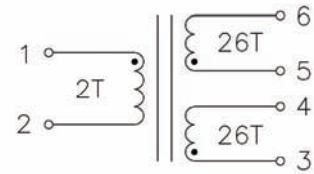


FIGURE 1



TP5120-1R1
(Flyback)

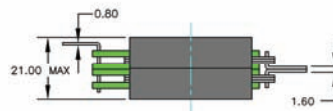
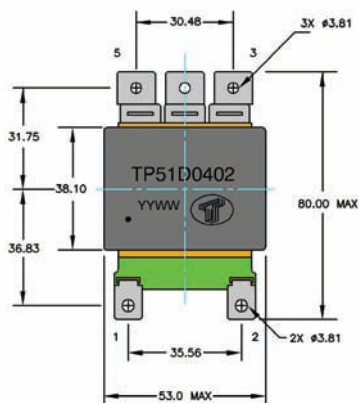
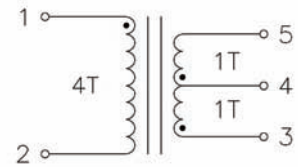


FIGURE 2



TP51D0402
(Full Bridge)

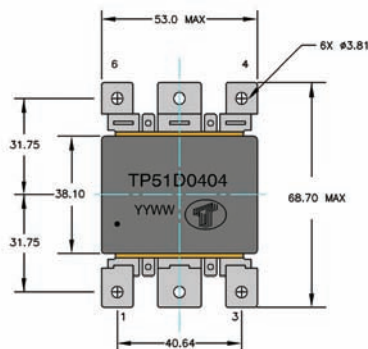
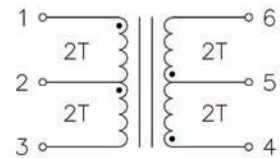


FIGURE 3



TP51D0404
(Push-Pull)

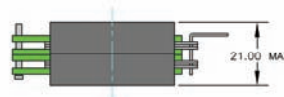
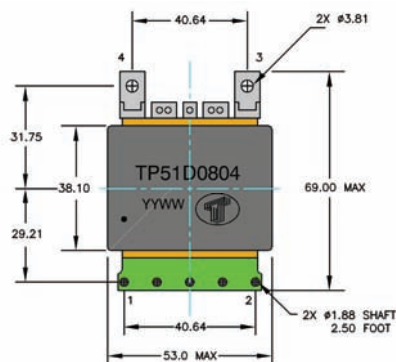
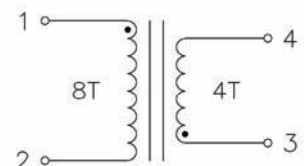


FIGURE 4



TP51D804
(Forward)

TP51 SERIES

High Frequency 5.6KWatts
Planar Transformers

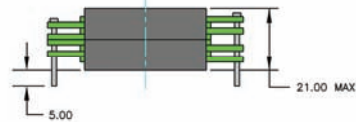
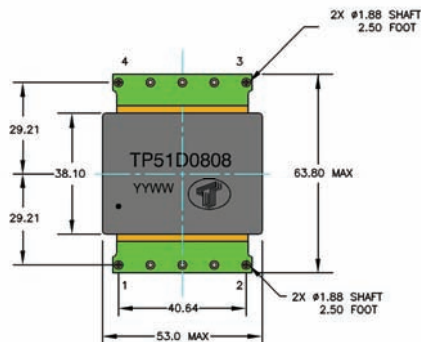
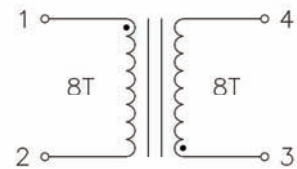


FIGURE 5



TP51D0808
(Half Bridge)

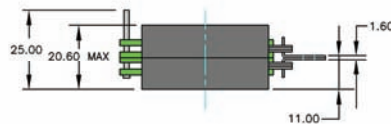
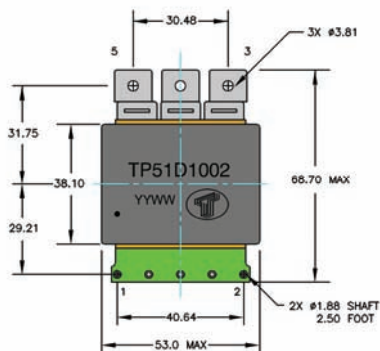
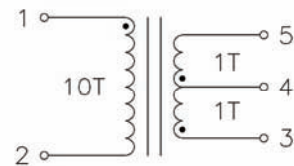


FIGURE 6



TP51D1002
(Full Bridge)

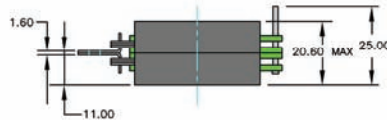
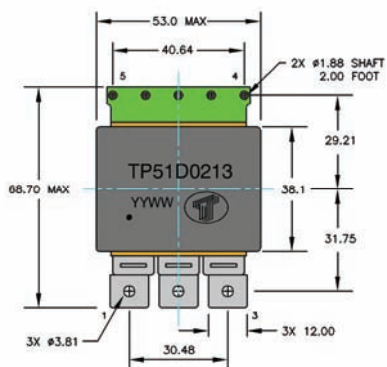
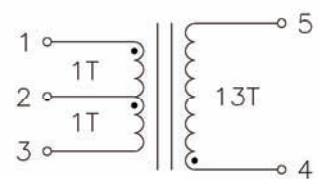


FIGURE 7



TP51D0213
(Forward)

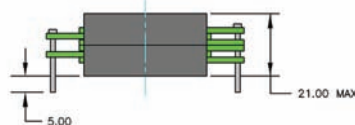
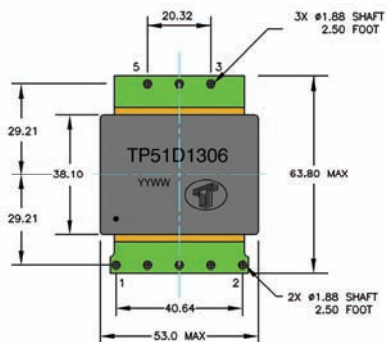
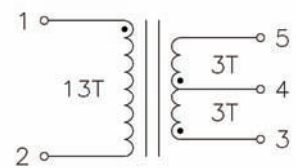


FIGURE 8



TP51D1306
(Full Bridge)