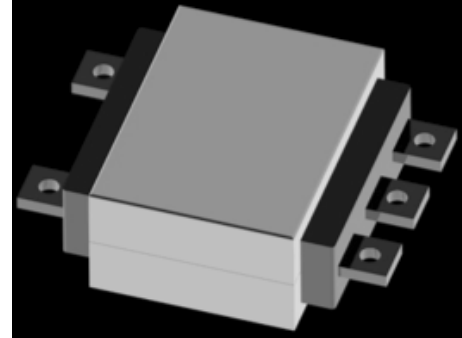


HPTR SERIES

Low Size Planar Transformer for HV Systems

Features

- High power planar XFMR for HEV/EV applications
- According AEC-Q200
- Easy-assembly system for cold plates
- Improved size with round center leg core
- Vacuum potted solution
- Power rating : 2-3.3 kW
- Frequency range : 90-110kHz
- H class component for operation up to 180°C
- Operating temperature from -40°C to 125°C
- Single blade and blade-for-screw output terminals
- UL94V-0 material
- RoHS compliant



Application

- Automotive DC/DC converters and battery chargers for HEV/EV systems
- Industrial high power SMPS

Electrical specifications

Part Number	Input Voltage Vdc (V)	Output Voltage (V)	Output Current (A)	Power (W)	Frequency (kHz)	Duty cycle	Topology	Inductance (mH)	Leakage Inductance (μH)	Turns Ratio (Pri:Sec)	Max Total losses (W)
HPTR-001	85-160	14	180	2.5	90-110	0.48	PS Full Bridge (*)	0.8	1	5:2	20
HPTR-002	260-420	14	160	2.2	90-110	0.43	ZVS Full Bridge	2.94	1	14:1	15
HPTR-003	350-420	420	7.6	3.2	90-110	0.44	Full Bridge	3,47	1	12 :16	15

(^) ZVS Full Bridge topology with 4-diodes rectification

(*) Phase shift Full Bridge topology with current doubler for 14V application.

Notes

- (1) All test data are referenced to 25°C ambient temperature
- (2) Continuous operating temperature range must be within -40°C/+125°C (ambient + self heating) under worst case conditions; exposure to 180°C peak is allowed. Thermal index H for all raw materials used
- (3) Performances are subjected to change according to cooling capability of the cold plate where the component is fixed. It is suggested to test the component at system level to verify its temperature rise after 30 minutes in the end application.
- (4) Inductance values are measured at 10kHz/1V
- (5) Hi-pot test between winding and between primary winding to core is above 5kV/50Hz/2sec

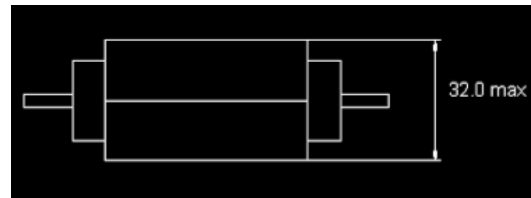
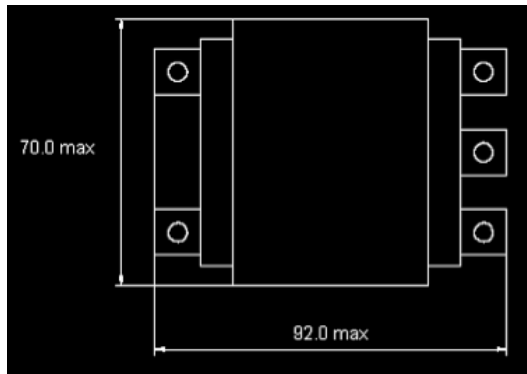
NEW

PREMO

HPTR SERIES

Low Size Planar Transformer for HV Systems

Dimensions



Electrical Diagram

