DATASHEET

DC/DC-Converter TP100WE-Series 100Watt

- **4:1 Input Range**
- **Efficiency to 93%**
- **Half-brick Package**
- **OCP/ OVP/ OTP**
- **continuous short circuit Protection**
- **Remote ON/OFF**

RoHS compliant

Model Number	Input Voltage	Output Voltage	Output Current	Input No Load	Current Full Load	% Eff.
TP100WE-24S3.3	9 – 36 V	3.3 VDC	25 A	200 mA	3.94 A	87
TP100WE-24S05	9 – 36 V	5 VDC	20 A	150 mA	4.66 A	89
TP100WE-24S12	9 – 36 V	12 VDC	8.4 A	200 mA	4.62 A	90
TP100WE-24S15	9 – 36 V	15 VDC	6.7 A	200 mA	4.62 A	90
TP100WE-24S24	9 – 36 V	24 VDC	4.2 A	100 mA	4.76 A	89
TP100WE-24S48	9 – 36 V	48 VDC	2.1 A	100 mA	4.76 A	89
TP100WE-48S3.3	18 – 75 V	3.3 VDC	25 A	130 mA	1.96 A	88
TP100WE-48S05	18 – 75 V	5 VDC	20 A	130 mA	2.28 A	92
TP100WE-48S12	18 – 75 V	12 VDC	8.4 A	100 mA	2.26 A	93
TP100WE-48S15	18 – 75 V	15 VDC	6.7 A	100 mA	2.26 A	92
TP100WE-48S24	18 – 75 V	24 VDC	4.2 A	100 mA	2.32 A	91
TP100WE-48S48	18 – 75 V	48 VDC	2.1 A	100 mA	2.32 A	90

All Specifications are Typical at Nominal Line, Full load, and 25°C Unless Otherwise Noted /

INPUT SPECIFICATIONS

INPUT VOLTAGE RANGE	24V..... 9V-36V
	48V.....18V-75V
INPUT SURGE VOLTAGE (100ms max)	24V..... 50Vdc max
	48V.....100Vdc max
INPUT UNDER-VOLTAGE LOCKOUT	24Vin power up 8.8Vdctyp
	24Vin power down 8.0Vdctyp
	48Vin power up 17Vdctyp
	48Vin power down 16Vdctyp
INPUT FILTER	PI Type

Positive Logic Remote on/off Control:

Logic Compatibility	CMOS or Open Collector TTL, ref. to –Vin
Modul ON	> +3.5VDC or Open Circuit
Modul OFF	< 1.2VC

OUTPUT SPECIFICATIONS

Voltage Accuracy	±1.5% max
Transient Response: 25% step load change	< 500µs
Ripple and Noise, 20MHz BW ..... Vo = 3,3V & 5V	max. 100mVpp.
Vo = 12V & 15V	max. 120mVpp.
Vo = 24V	max. 240mVpp.
Vo = 48V	max. 480mVpp.
Temperature Coefficient	±0.03%/C max
Line Regulation	±0.2%.
Load Regulation	±0.2%.
External Trim Adj. Range	±10%
Short Circuit Protection	continuous
Over Voltage Protection	115 – 140%
Current Limit	110% - 140% Nominal Output
Start up time	10ms typ.

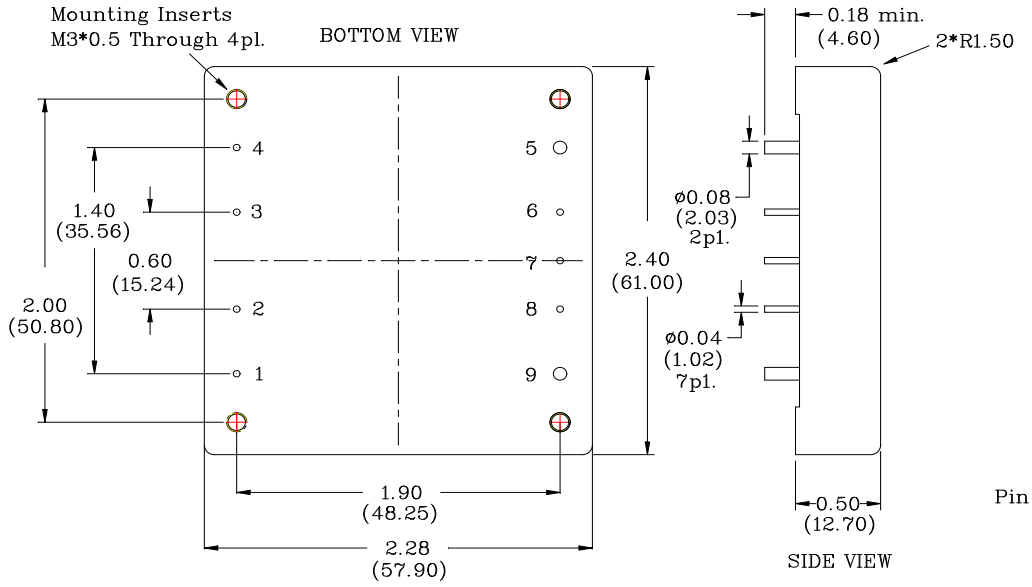
GENERAL SPECIFICATIONS

ISOLATION VOLTAGE	1500VDC max.
ISOLATION RESISTANCE	10 MOhm
SWITCHING FREQUENCY	250KHz typ.
OPERATING TEMPERATURE RANGE	-40°C TO +105°C
THERMAL SHUT DOWN; CASE TEMPERATURE	110°C typ.
STORAGE TEMPERATURE RANGE	-55°C TO +105°C
CASE MATERIAL	Aluminium
DIMENSIONS	2,28×2,40×0.50 INCHES (57.9 × 61.0 × 12.7mm)

NOTE:

1. LINE REGULATION: Measured From High Line To Low Line
2. LOAD REGULATION: Measured From Full Load To Zero Load

MECHANICAL SPECIFICATIONS

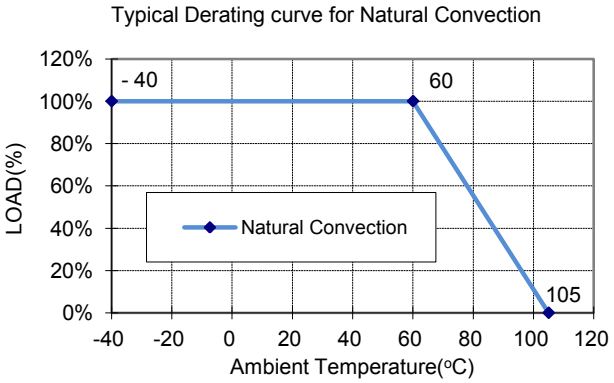


Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	−Vin
5	−Vout
6	−Sense
7	Trim
8	+Sense
9	+Vout

Tolerances

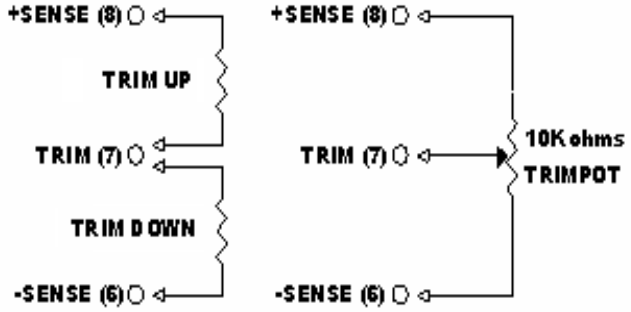
Inches	Millimeters
.XX±0.02	.X±0.5
.XXX±0.01	.XX±0.25
Pin ±0.02	±0.5

DERATING CURVE



Full Load Operation up to Ta =60°C with Heatsink MC310 at Natural Convection

External Output TRIM



REMOTE ON/OFF

Logic Compatibility	Open collector TTL refer to -Input
Modul ON	> 3.5V or Open Circuit
Module OFF	<1.2 Vdc