TOPPOWER

TP15DB Series

DESCRIPTION: **15W 1.5KVDC Wide Voltage Input DC/DC Converters**

The rated output power of TP15DB converters is 15W,the outline dimensions is "25.4*25.4*11.2", 2:1 and 4:1 wide input voltage range,the voltage range is 18V-36V,36V-75V,9V-36V .The accuracy of the converter can reach ±1%,it can be widely used in telecommunications,railway transportation, instrument and etc.

FEATURES

15W output power	Long-term short-circuit protection, Auto recovery	High switching frequency , High output density
Metal shell package	With remote control and output adjustment function	RoHS compliant

SELECTION GUIDE

Part Number	Input Voltage		Output		Efficiency (Typ) %	Ripple and noise （mV）
	Voltage （VDC）		Voltage（VDC）	Current（A）		
	Rated	Range values				
TP15DB24S03	24(2:1)	18-36	3.3	4.5	85	60
TP15DB24S05	24(2:1)	18-36	5	3.0	86	60
TP15DB24S24	24(2:1)	18-36	24	0.6	87	240
TP15DB48S15	48(2:1)	36-75	15	1.0	87	150
TP15DB24S05W	24(4:1)	9-36	5	3.0	86	60
TP15DB24S12W	24(4:1)	9-36	12	1.25	87	120
TP15DB24S15W	24(4:1)	9-36	15	1.0	87	150

All specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

INPUT CHARACTERISTICS

parameter	conditions	Min	Typ	Max	Units
Input Voltage		18	24	36	VDC
Input Voltage		9	24	36	VDC
Input Voltage		36	48	75	VDC
Remote Control	CNT side plus level, the reference voltage is -Vin	High frequency electric or floating , low level or ground power supply work, output power was turned off			

OUTPUT CHARACTERISTICS

parameter	conditions	Min	Typ	Max	Units
Voltage accuracy				±1	%
Voltage regulation				±10 (V0)	%
Adjustment rate				±0.2	%
Load effect				±0.5	%
Dynamic Response	50~75% Load		±4%Vo Overshoot		%
Dynamic Response	50~25% Load		400μS Recovery Time		%
Temperature drift coefficient			±0.02		%/℃

GENERAL CHARACTERISTICS

parameter	conditions	Min	Typ	Max	Units
Isolation voltage	Input-Ouput		1500		VDC
Isolation voltage	Input - shell		1500		VDC
Isolation voltage	Output nput - shell		500		VDC
Insulation resistance	500VDC		100		MΩ
Switching frequency			450		KHZ
Environment temperature		-25		+95	℃
Working temperature		-25		+55	℃
Storage temperature		-40		+105	℃
Relative humidity		10		90	%

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PROTECTION CHARACTERISTICS

parameter	conditions
Output Over-current protection	Auto recovery
Output Short -circuit protection	Auto recovery

NOTES

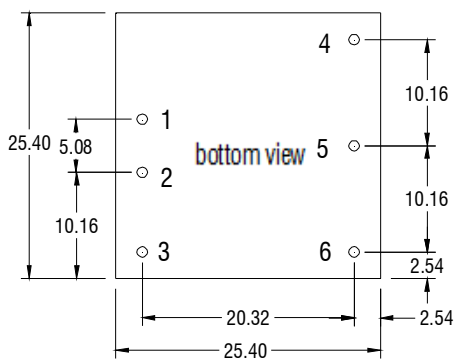
1、 The maximum temperature can not exceed the specified value While product work.

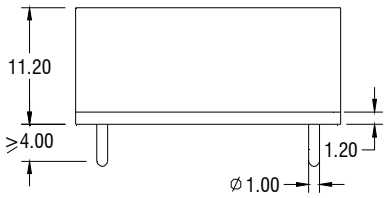
2、 The highest working environment temperature of product is variable, the cooling conditions and the actual use of power changes will affect the product's maximum working temperature.

3、 This series of high power density products, more heat dissipation, cooling area is limited; In high temperature environment & full-Load, it is recommended to use auxiliary cooling measures (plus radiator, paste the metal box wall, etc.) to ensure that The temperature of the product substrate does not exceed the specified value.

MECHANICAL DIMENSIONS

DIP Package





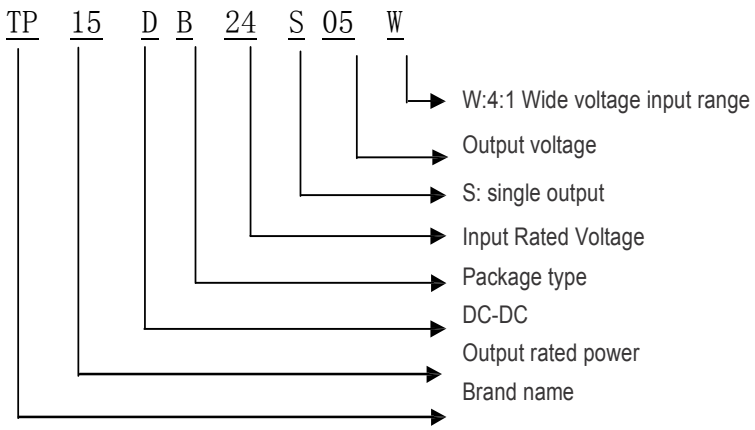
Units: mm

Tolerance:±0.2mm

PIN CONNECTION

PIN	Single output
1	+Vin
2	-Vin
3	CNT
4	+V0
5	TRIMt
6	GND

MODEL SELECTION



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