



Yuan Dean Scientific CO.,LTD 12DZ-2W SERIES

3000Vdc Isolation Single Output 2 Watt Dc-Dc Converter



FEATURES:

- 2:1 Wide Input Voltages Range
- 7PIN SIP Package
- High Efficiency up to 83%
- Regulated Output Types
- Internal SMD Construction
- No External Component Required
- Operating Temperature: -40°C TO +85°C
- Industry Standard Pinout



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

Part Number	Input Voltage Range	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
12DZ-05S05R2W	4.5-9	5	400	70
12DZ-05S09R2W	4.5-9	9	222	72
12DZ-05S12R2W	4.5-9	12	167	75
12DZ-05S15R2W	4.5-9	15	133	78
12DZ-05S24R2W	4.5-9	24	84	80
12DZ-12S05R2W	9-18	5	400	75
12DZ-12S09R2W	9-18	9	222	78
12DZ-12S12R2W	9-18	12	167	80
12DZ-12S15R2W	9-18	15	133	80
12DZ-12S24R2W	9-18	24	84	83
12DZ-24S05R2W	18-36	5	400	76
12DZ-24S09R2W	18-36	9	222	78
12DZ-24S12R2W	18-36	12	167	80
12DZ-24S15R2W	18-36	15	133	80
12DZ-24S24R2W	18-36	24	84	83

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			2:1	
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±1.5	%
Ripple & Noise	Output: 5V, 9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output: 12-24V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications

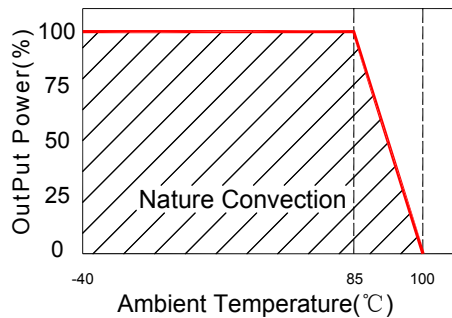
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operation Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			2.7		g
Dimensions			19.5x7.1x10.0		mm



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Temperature Derating Graph



Part Number

12DZ - 05 S 05 R 2W

A B C D E F

A:Series

B:Input Voltage

C:Single Output

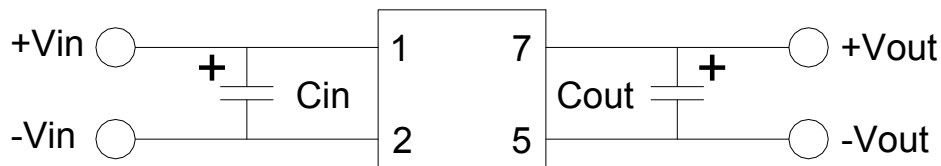
D:Output Voltage

E:Regulated(R)

F:Output Power

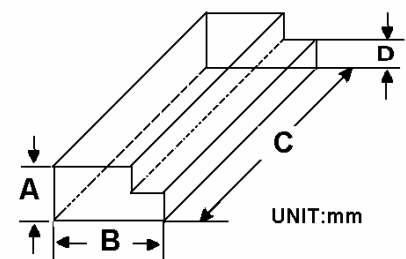
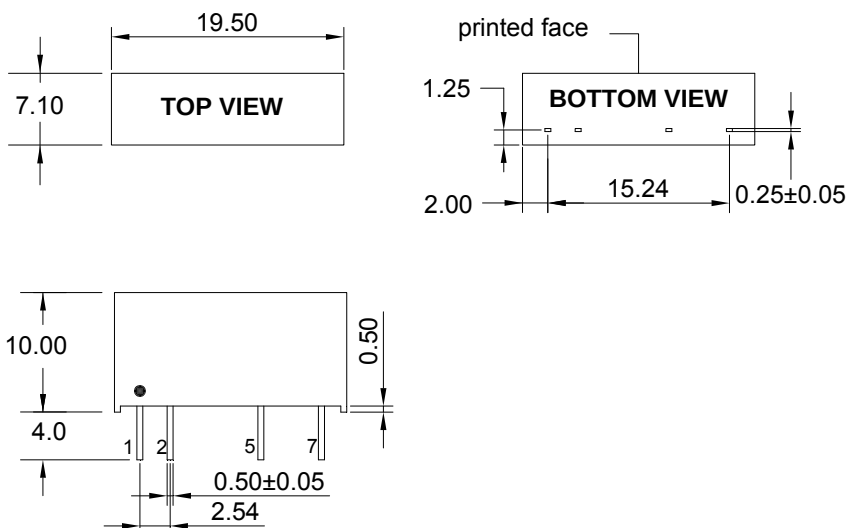
Recommended Test Circuit

Cin: 10uF,100V
Cout:100uF,50V



Markings and dimensions

Packaging



UNIT:mm Unless otherwise specified,all tolerances are ± 0.25

PIN Connection

PIN	1	2	5	7
Single	+Vin	-Vin	-Vout	+Vout

Size(mm)

A	B	C	D
9.5	16.5	522	5.0