



## 3000Vdc Isolation Single Output 1 Watt Dc-Dc Converter



### FEATURES:

- 2:1 Wide Input Voltages Range
- 7PIN SIP Package
- High Efficiency up to 80%
- 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-05S05R	4.5-9	5	200	65
12DZ-05S09R	4.5-9	9	112	70
12DZ-05S12R	4.5-9	12	84	70
12DZ-05S15R	4.5-9	15	67	70
12DZ-05S24R	4.5-9	24	42	75
12DZ-12S05R	9-18	5	200	70
12DZ-12S09R	9-18	9	112	75
12DZ-12S12R	9-18	12	84	75
12DZ-12S15R	9-18	15	67	75
12DZ-12S24R	9-18	24	42	80
12DZ-24S05R	18-36	5	200	75
12DZ-24S09R	18-36	9	112	80
12DZ-24S12R	18-36	12	84	80
12DZ-24S15R	18-36	15	67	80
12DZ-24S24R	18-36	24	42	80

### Input Specifications

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

### Output Specifications

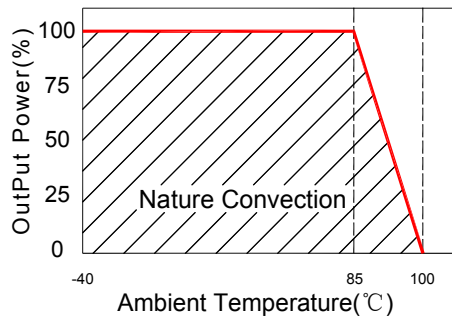
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±1.5	%
Ripple & Noise	Output:5V,9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-24V TYPES BW=DC To 20MHz			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



### Temperature Derating Graph



### Part Number

12DZ - 05 S 05 R

A B C D E

A:Series

B:Input Voltage

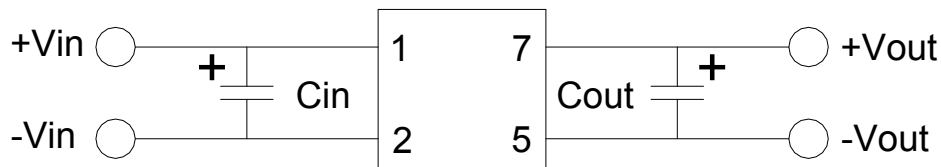
C:Single Output

D:Output Voltage

E:Regulated(R)

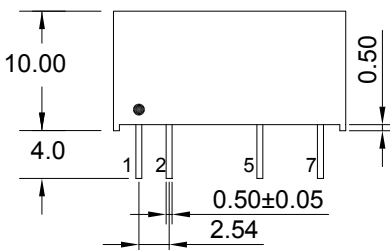
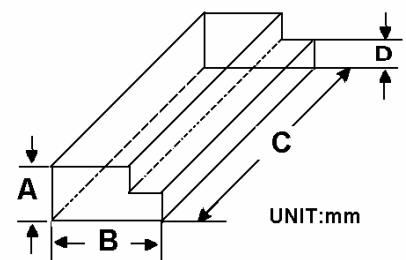
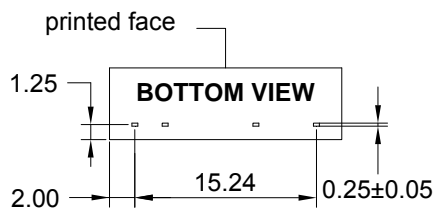
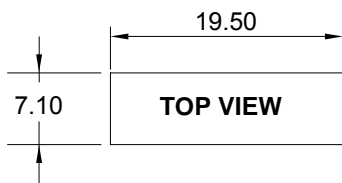
### Recommended Test Circuit

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