

**FEATURES :**

- 2:1Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback

YUAN DEAN SCIENTIFIC



DC-DC Converter

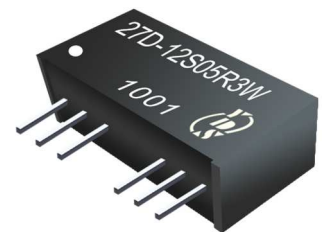
27D-3W SERIES

3Watt 1.5KV & 3KV Isolated

2 : 1 Input Voltage Range

Single Output

SIP8



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

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
27D-12S03R3W (3KV)	9-18	3.3	909	70
27D-12S05R3W (3KV)	9-18	5	600	70
27D-12S09R3W (3KV)	9-18	9	333	75
27D-12S12R3W (3KV)	9-18	12	250	78
27D-12S15R3W (3KV)	9-18	15	200	80
27D-24S03R3W (3KV)	18-36	3.3	700	68
27D-24S05R3W (3KV)	18-36	5	600	70
27D-24S09R3W (3KV)	18-36	9	333	75
27D-24S12R3W (3KV)	18-36	12	250	78
27D-24S15R3W (3KV)	18-36	15	200	80
27D-48S03R3W (3KV)	36-72	3.3	700	68
27D-48S05R3W (3KV)	36-72	5	600	70
27D-48S09R3W (3KV)	36-72	9	333	75
27D-48S12R3W (3KV)	36-72	12	250	78
27D-48S15R3W (3KV)	36-72	15	200	80

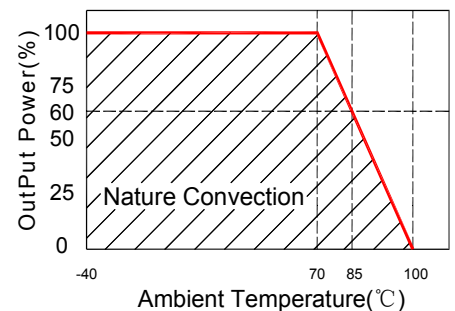
**NOTE :**

No suffix is standard isolation (1.5KVDC) e.g, 27D-12S05R3W  
 \*add suffix /3KV for 3KVDC isolation, e.g, 27D-12S05R3W3KV

**Input Specifications**

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

**Temperature Derating Graph**



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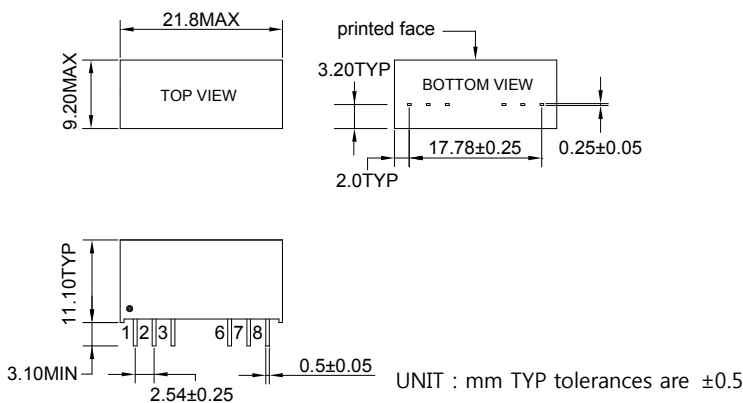
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:3.3V-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output:12-15V 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
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F @25°C	1500000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

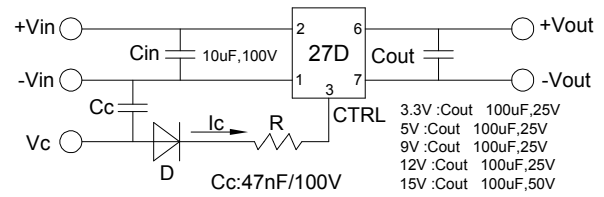
Markings and dimensions



Part Number

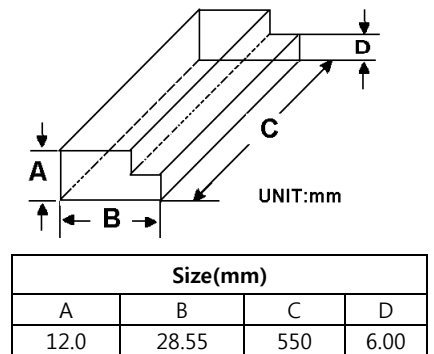
27D - 12 S 05 R 3W 3KV  
 A B C D E F G  
 A:Series  
 B:Input Voltage  
 C:Single Output  
 D:Output Voltage  
 E:Regulated(R)  
 F:Output Power  
 G:Isolation Voltage

Recommended Test Circuit



1. When open or high impedance, the converter works well; when this pin is 'high', the converter shut down. It should be note that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
2. To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Packaging



PIN Connection

Pin	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	-Vout	NC

