

FEATURES :

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

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-05D05R (NL/3KV)	5-9	±5	±200	65
27D-05D09R (NL/3KV)	5-9	±9	±111	70
27D-05D12R (NL/3KV)	5-9	±12	±84	70
27D-05D15R (NL/3KV)	5-9	±15	±67	70
27D-05D24R (NL/3KV)	5-9	±24	±42	80
27D-12D05R (NL/3KV)	9-18	±5	±200	70
27D-12D09R (NL/3KV)	9-18	±9	±111	80
27D-12D12R (NL/3KV)	9-18	±12	±84	80
27D-12D15R (NL/3KV)	9-18	±15	±67	80
27D-12D24R (NL/3KV)	9-18	±24	±42	80
27D-24D05R (NL/3KV)	18-36	±5	±200	75
27D-24D09R (NL/3KV)	18-36	±9	±111	80
27D-24D12R (NL/3KV)	18-36	±12	±84	80
27D-24D15R (NL/3KV)	18-36	±15	±67	80
27D-24D24R (NL/3KV)	18-36	±24	±42	80
27D-48D05R (NL/3KV)	36-72	±5	±200	70
27D-48D09R (NL/3KV)	36-72	±9	±111	80
27D-48D12R (NL/3KV)	36-72	±12	±84	80
27D-48D15R (NL/3KV)	36-72	±15	±67	80
27D-48D24R (NL/3KV)	36-72	±24	±42	80

NOTE:

No suffix is standard isolation (1KVDC) e.g, 27D-12D05RNL ,
 *add suffix /3KV for 3KVDC isolation, e.g, 27D-12D05R3KV

Input Specifications

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

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DC-DC Converter

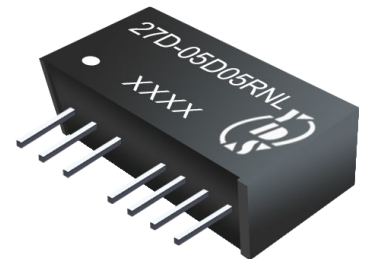
27D-Dual SERIES

2Watt 1KV & 3KV Isolated

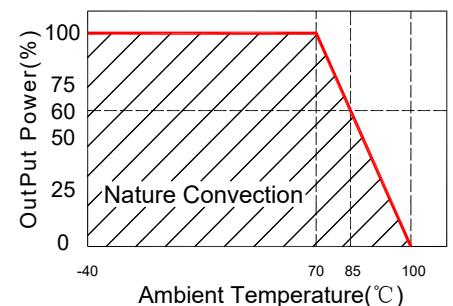
2 : 1 Input Voltage Range

Dual Output

SIP7



Temperature Derating Graph



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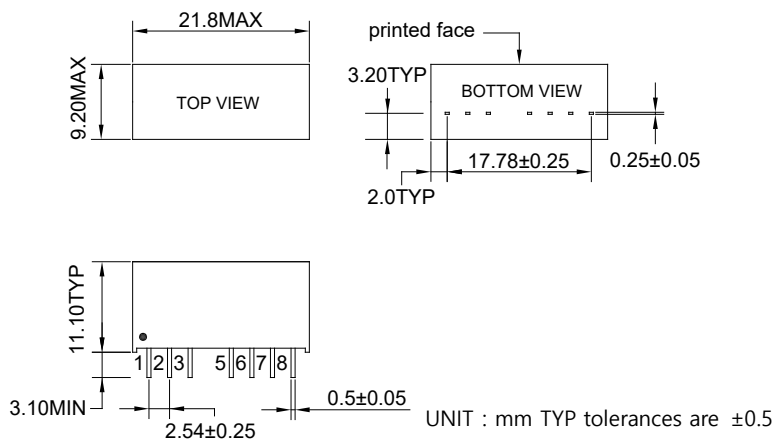
Output Specifications

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: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
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



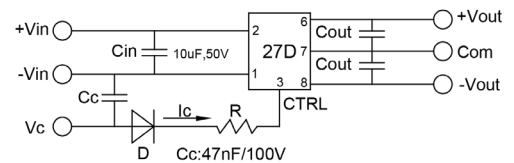
Part Number

27D - 05 D 05 R NL 27D - 05 D 05 R 3KV
A B C D E F A B C D E F

A:Series
B:Input Voltage
C:Dual(D)
D:Output Voltage
E:Regulated(R)
F:RoHS Version

A:Series
B:Input Voltage
C:Dual Output
D:Output Voltage
E:Regulated(R)
F:Isolation Voltage

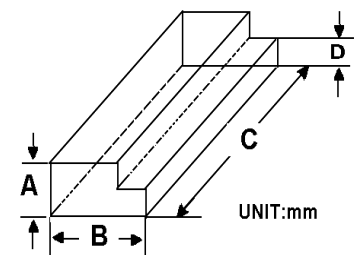
Recommended Test Circuit



5V:Cin 10uF,25V 5V :Cout 100uF/25V
12V:Cin 10uF,50V 9V :Cout 100uF/25V
24V:Cin 10uF,100V 12V:Cout 100uF/25V
48V:Cin 10uF,100V 15V:Cout 100uF/50V
24V:Cout 100uF/50V

- 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.
- 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



Size(mm)			
A	B	C	D
12.0	28.55	550	6.00

PIN Connection

Pin	1	2	3	5	6	7	8
1KV	-Vin	+Vin	Ctrl-Control input can (can be left open)	NE-No external connection allowed	+Vout	COM	-Vout
3KV	-Vin	+Vin	Ctrl-Control input can (can be left open)	No Pin	+Vout	COM	-Vout

