

C27D-Dual SERIES 2Watt 1KV & 3KV Isolated DC-DC Converter 2 : 1 Input Voltage Range SIP7



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
C27D-05D05R (NL/3KV)	5-9	±5	±200	65
C27D-05D09R (NL/3KV)	5-9	±9	±111	70
C27D-05D12R (NL/3KV)	5-9	±12	±84	70
C27D-05D15R (NL/3KV)	5-9	±15	±67	70
C27D-05D24R (NL/3KV)	5-9	±24	±42	80
C27D-12D05R (NL/3KV)	9-18	±5	±200	70
C27D-12D09R (NL/3KV)	9-18	±9	±111	80
C27D-12D12R (NL/3KV)	9-18	±12	±84	80
C27D-12D15R (NL/3KV)	9-18	±15	±67	80
C27D-12D24R (NL/3KV)	9-18	±24	±42	80
C27D-24D05R (NL/3KV)	18-36	±5	±200	75
C27D-24D09R (NL/3KV)	18-36	±9	±111	80
C27D-24D12R (NL/3KV)	18-36	±12	±84	80
C27D-24D15R (NL/3KV)	18-36	±15	±67	80
C27D-24D24R (NL/3KV)	18-36	±24	±42	80
C27D-48D05R (NL/3KV)	36-72	±5	±200	70
C27D-48D09R (NL/3KV)	36-72	±9	±111	80
C27D-48D12R (NL/3KV)	36-72	±12	±84	80
C27D-48D15R (NL/3KV)	36-72	±15	±67	80
C27D-48D24R (NL/3KV)	36-72	±24	±42	80

NOTE:

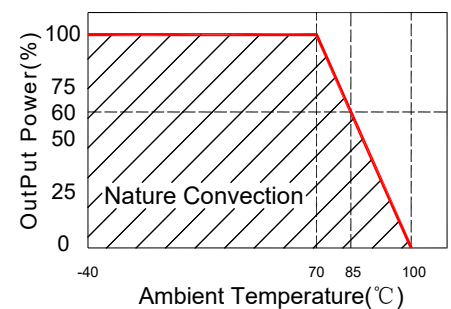
No suffix is standard isolation (1KVDC) e.g, C27D-12D05RNL ,
*add suffix /3KV for 3KVDC isolation, e.g, C27D-12D05R3KV

Input Specifications

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



Temperature Derating Graph



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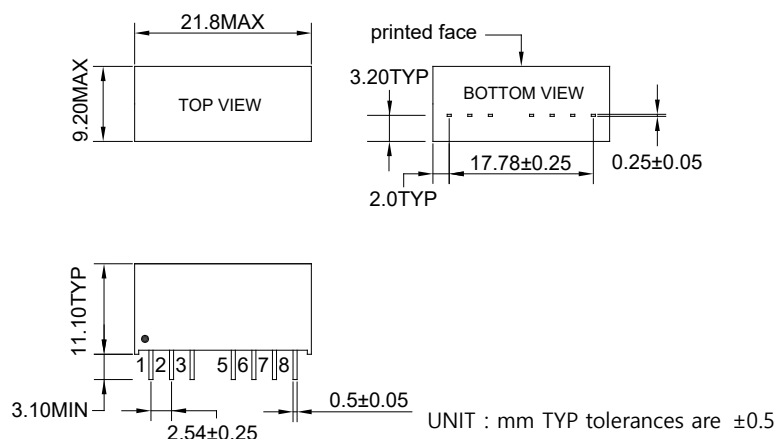
Output Specifications

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: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

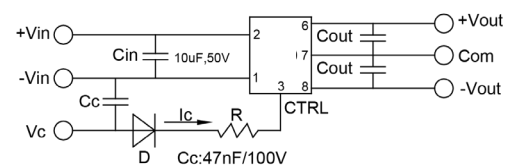
Markings and Dimensions



Part Number

C27D - 05 D 05 R NL	C27D - 05 D 05 R 3KV
A B C D E F	A B C D E F
A:Series	A:Series
B:Input Voltage	B:Input Voltage
C:Dual(D)	C:Dual Output
D:Output Voltage	D:Output Voltage
E:Regulated(R)	E:Regulated(R)
F:RoHS Version	F:Isolation Voltage

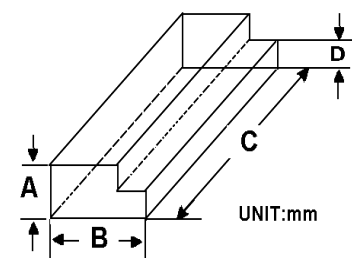
Recommended Test Circuit



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

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



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