

C27D- Single 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

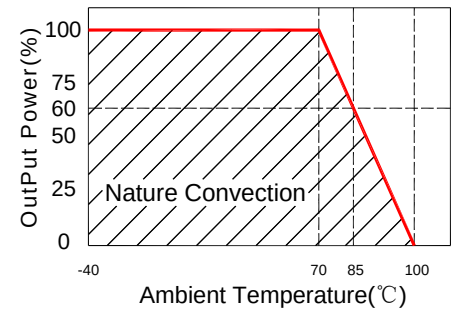
Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
C27D-05S05RNL/3KV	5-9	5	400	65
C27D-05S09RNL/3KV	5-9	9	222	70
C27D-05S12RNL/3KV	5-9	12	167	70
C27D-05S15RNL/3KV	5-9	15	133	70
C27D-05S24RNL/3KV	5-9	24	84	70
C27D-12S05RNL/3KV	9-18	5	400	70
C27D-12S09RNL/3KV	9-18	9	222	80
C27D-12S12RNL/3KV	9-18	12	167	80
C27D-12S15RNL/3KV	9-18	15	133	80
C27D-12S24RNL/3KV	9-18	24	84	80
C27D-24S05RNL/3KV	18-36	5	400	75
C27D-24S09RNL/3KV	18-36	9	222	80
C27D-24S12RNL/3KV	18-36	12	167	80
C27D-24S15RNL/3KV	18-36	15	133	80
C27D-24S24RNL/3KV	18-36	24	84	80
C27D-48S05RNL/3KV	36-72	5	400	70
C27D-48S09RNL/3KV	36-72	9	222	80
C27D-48S12RNL/3KV	36-72	12	167	80
C27D-48S15RNL/3KV	36-72	15	133	80
C27D-48S24RNL/3KV	36-72	24	84	80

NOTE :

No suffix is standard isolation (1KVDC) e.g, C27D-12S05RNL

*add suffix /3KV for 3KVDC isolation, e.g, C27D-12S05R3KV

Temperature Derating Graph



Input Specifications

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

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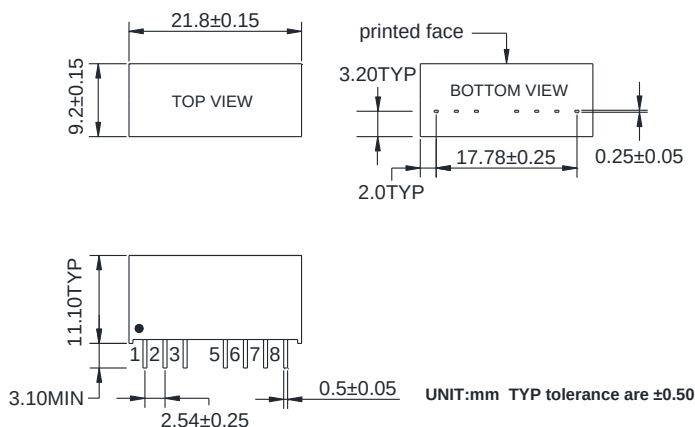
Output Specifications

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

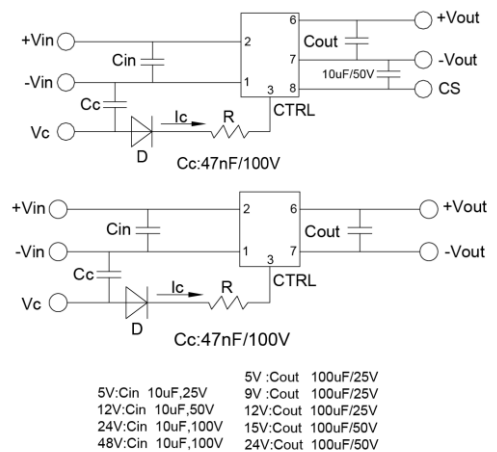
Markings and Dimensions



Part Number

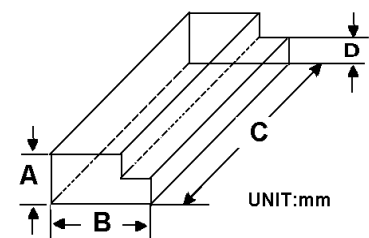
C27D - 05 S 05 R N	C27D - 05 S 05 R 3K
A B C D E F	A B C D E F
A:Series	A:Series
B:Input Voltage	B:Input Voltage
C:Single(S)	C:Single Output
D:Output Voltage	D:Output Voltage
E:Regulated(R)	E:Regulated(R)
F:RoHS Version	F:Isolation Voltage

Recommended Test Circuit



- 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	-Vout	CS Optional External capacitor
3KV	-Vin	+Vin	Ctrl-Control input can (can be left open)	No Pin	+Vout	-Vout	NC