



1 Watt Single Output Regulated 1000Vdc Isolation Dc-Dc Converter



FEATURES:

- 2:1 Wide Input Voltages Range
- High Efficiency up to 85%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- Operating Temperature: -40~+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 Range	Output Voltage Range	Output Current	Efficiency
	Vdc	Vdc	mA	% TYP
16D-05S05RNL	5-9	5	200	60
16D-05S09RNL	5-9	9	111	70
16D-05S12RNL	5-9	12	84	70
16D-05S15RNL	5-9	15	67	70
16D-05S24RNL	5-9	24	42	70
16D-12S05RNL	9-18	5	200	70
16D-12S09RNL	9-18	9	111	80
16D-12S12RNL	9-18	12	84	80
16D-12S15RNL	9-18	15	67	80
16D-12S24RNL	9-18	24	42	80
16D-24S05RNL	18-36	5	200	75
16D-24S09RNL	18-36	9	111	80
16D-24S12RNL	18-36	12	84	80
16D-24S15RNL	18-36	15	67	80
16D-24S24RNL	18-36	24	42	80
16D-48S05RNL	36-72	5	200	70
16D-48S09RNL	36-72	9	111	80
16D-48S12RNL	36-72	12	84	80
16D-48S15RNL	36-72	15	67	80
16D-48S24RNL	36-72	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			±3	%
Short Circuit	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	output:5-9V 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

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Temperature Derating Graph	Part Number
	16D - <u>05</u> <u>S</u> <u>05</u> <u>R</u> <u>NL</u> A B C D E F
	A:Series B:Input Voltage C:Single(S) D:Output Voltage E:Regulated(R) F:RoHS Version

Recommended Test Circuit

Markings and dimensions	Packaging												
<p style="text-align: center;">UNIT : mm TYP tolerances are ±0.5</p>	<p style="text-align: center;">UNIT:mm</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Size(mm)</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>12.0</td> <td>28.55</td> <td>550</td> <td>6.00</td> </tr> </tbody> </table>	Size(mm)				A	B	C	D	12.0	28.55	550	6.00
Size(mm)													
A	B	C	D										
12.0	28.55	550	6.00										

PIN Connection							
PIN	1	2	3	5	6	7	8
Single	-Vin	+Vin	Ctrl-Control input can (can be left open)	NE-No external connection allowed	+Vout	-Vout	CS Optional External capacitor