



## 1 Watt Dual 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-05D05RNL	5-9	±5	±100	60
16D-05D09RNL	5-9	±9	±56	70
16D-05D12RNL	5-9	±12	±42	70
16D-05D15RNL	5-9	±15	±34	70
16D-05D24RNL	5-9	±24	±21	70
16D-12D05RNL	9-18	±5	±100	70
16D-12D09RNL	9-18	±9	±56	80
16D-12D12RNL	9-18	±12	±42	80
16D-12D15RNL	9-18	±15	±34	80
16D-12D24RNL	9-18	±24	±21	80
16D-24D05RNL	18-36	±5	±100	75
16D-24D09RNL	18-36	±9	±56	80
16D-24D12RNL	18-36	±12	±42	80
16D-24D15RNL	18-36	±15	±34	80
16D-24D24RNL	18-36	±24	±21	80
16D-48D05RNL	36-72	±5	±100	70
16D-48D09RNL	36-72	±9	±56	80
16D-48D12RNL	36-72	±12	±42	80
16D-48D15RNL	36-72	±15	±34	80
16D-48D24RNL	36-72	±24	±21	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



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

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

Recommended Test Circuit

Markings and dimensions	Packaging												
<p>UNIT : mm TYP tolerances are ±0.5</p>	<p>UNIT:mm</p> <table border="1"> <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
Dual	-Vin	+Vin	Ctrl-Control input can (can be left open)	NE-No external connection allowed	+Vout	COM	-Vout