



DCR

S E R I E S

3 WATT

DC-DC CONVERTERS



Features

- 3W Isolated Output
- DIP-24 / SMD Package
- Regulated Outputs
- Efficiency to 61%
- LC Input Filter
- Low Ripple and Noise

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
DCR-5/5	5 VDC	5 VDC	600 mA	120 mA	984 mA	61	DIP-24
DCR-5/12		12 VDC	250 mA				
DCR-5/15		15 VDC	200 mA				
DCR-5/12-12		±12 VDC	±125 mA				
DCR-5/15-15		±15 VDC	±100 mA				
DCR-12/5	12 VDC	5 VDC	600 mA	60 mA	410 mA	61	DIP-24
DCR-12/12		12 VDC	250 mA				
DCR-12/15		15 VDC	200 mA				
DCR-12/12-12		±12 VDC	±125 mA				
DCR-12/15-15		±15 VDC	±100 mA				
DCR-24/5	24 VDC	5 VDC	600 mA	40 mA	205 mA	61	DIP-24
DCR-24/12		12 VDC	250 mA				
DCR-24/15		15 VDC	200 mA				
DCR-24/12-12		±12 VDC	±125 mA				
DCR-24/15-15		±15 VDC	±100 mA				
DCR-28/5	28 VDC	5 VDC	600 mA	35 mA	176 mA	61	DIP-24
DCR-28/12		12 VDC	250 mA				
DCR-28/15		15 VDC	200 mA				
DCR-28/12-12		±12 VDC	±125 mA				
DCR-28/15-15		±15 VDC	±100 mA				
DCR-48/5	48 VDC	5 VDC	600 mA	20 mA	102 mA	61	DIP-24
DCR-48/12		12 VDC	250 mA				
DCR-48/15		15 VDC	200 mA				
DCR-48/12-12		±12 VDC	±125 mA				
DCR-48/15-15		±15 VDC	±100 mA				

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range..... $\pm 10\%$
 Input Filter.....LC Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy..... $\pm 3.0\%$ max.
 Temperature Coefficient..... $\pm 0.02\% / ^\circ\text{C}$
 Ripple and Noise, 20MHz BW.....50mV p-p max.
 Short Circuit Protection.....Indefinite & Current Limit
 Line Regulation¹, Single/Dual..... $\pm 0.3\%$ max.
 Load Regulation², Single..... $\pm 0.5\%$ max.
 Dual..... $\pm 1.0\%$ max.

GENERAL SPECIFICATIONS:

Efficiency.....See Table
 Isolation Capacitance.....150pF Typ.
 Isolation Resistance..... 10^9 ohms
 Switching Frequency.....80KHz, Typ.
 Operating Ambient Temperature Range -25°C to $+71^\circ\text{C}$
 De-rating, Above 71°C Linearly to Zero power at 100°C
 Case Temperature⁴..... 100°C max.
 Cooling Natural Convection
 Storage Temperature Range..... -40°C to $+100^\circ\text{C}$
 DimensionsDIP.....1.25 x 0.80 x 0.40 inches (31.8 x 20.3 x 10.2mm)
 SMD.....1.25 x 0.80 x 0.45 inches (31.8 x 20.3 x 11.4mm)
 Weight.....17.2g

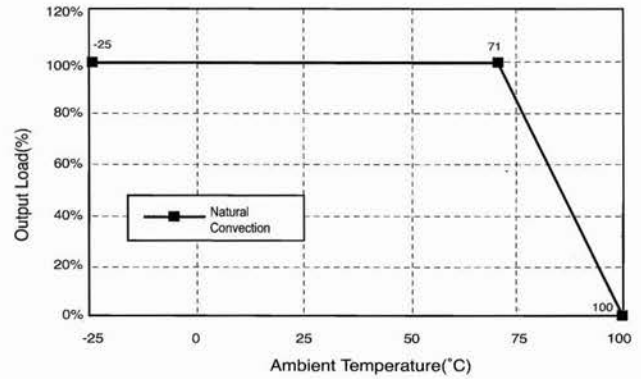
ISOLATION VOLTAGE:

500 VDC min.....Standard Models

CASE MATERIAL:

Standard Models.....Black Coated Copper with
 Non-Conductive Base

DCR Series Derating Curve



NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Suffix "S" to the Model Number with SMD packages
4. Maximum case temperature under any operating condition should not be exceeded 100°C

PIN CONNECTION

500 VDC

Pin	Single Output		Dual Output	
	DIP	SMD	DIP	SMD
1, 24	+V Input		+V Input	
2, 23	NC		-V Output	
3, 22	NC		Common	
4, 5	NP	NC	NP	NC
9	NP	NC	NP	NC
10, 15	-V Output		Common	
11, 14	+V Output		+V Output	
12, 13	-V Input		-V Input	
16	NP	NC	NP	NC
20, 21	NP	NC	NP	NC

*NC-NO CONNECTION WITH PIN
 *NP-No PIN

CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA ± 0.05
 All Dimensions In Inches (mm)
 Tolerance Inches: .xx = ± 0.02 , .xxx = ± 0.010
 Millimeters: .x = ± 0.5 , .xx = ± 0.25

