



## Wide Input Voltage Range 3 Watt Dc-Dc Converter



### FEATURES:

- 4:1 Wide Input Voltage.
- 3 Watt 24PIN DIL Package.
- Efficiency To 80%
- PI Input Filter.
- 1500Vdc Isolation
- MTBF:>1,500,000 hrs
- Operating Temperature:-40°C TO +85°C



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
69D-24S05RNL	9-36	5	600	75
69D-24S12RNL	9-36	12	250	75
69D-24S15RNL	9-36	15	200	75
69D-24D05RNL	9-36	±5	±300	75
69D-24D12RNL	9-36	±12	±125	75
69D-24D15RNL	9-36	±15	±100	75
69D-48S05RNL	18-72	5	600	75
69D-48S12RNL	18-72	12	250	75
69D-48S15RNL	18-72	15	200	75
69D-48D05RNL	18-72	±5	±300	75
69D-48D12RNL	18-72	±12	±125	75
69D-48D15RNL	18-72	±15	±100	75

### Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	Capacitor				

### Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance				±2	%
Short Circuit Protection	Continuous				
Line Regulation				±0.5	%
Load Regulation	SINGLE			±0.5	%
Load Regulation	DUAL			±2.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

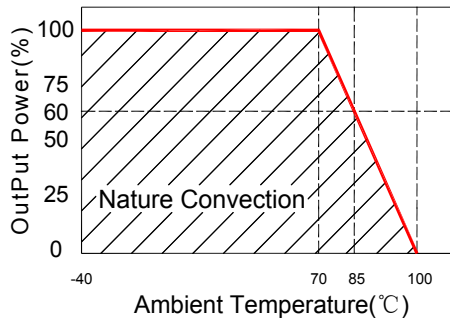
### General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			100		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel Coated With Non-Conductive Base or Black Coated Copper With Non-Conductive Base				
Weight			16.2		g
Dimensions			31.80x20.60x10.16		mm

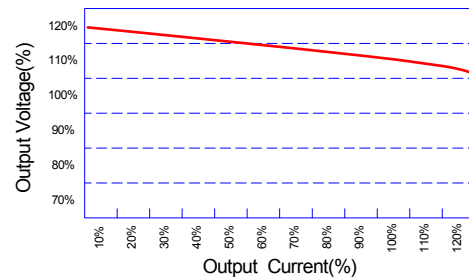


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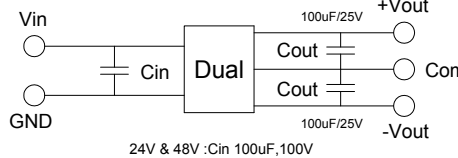
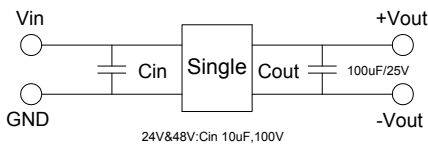
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

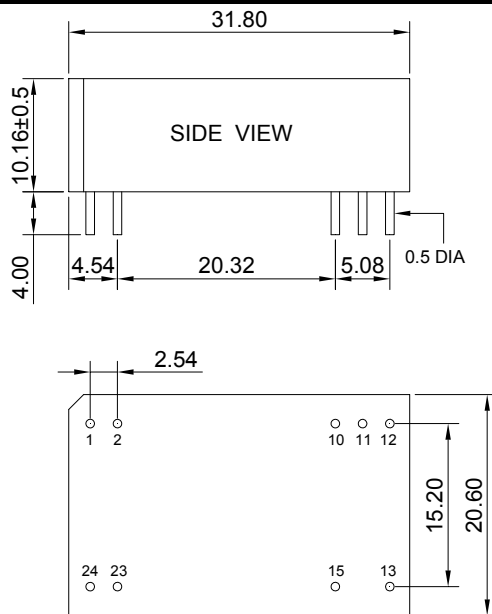


Part Number

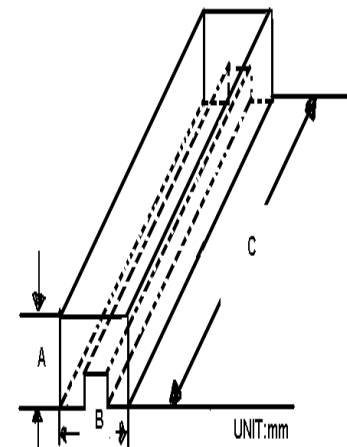
69D - 24 S 05 R NL  
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)
- F:RoHS Version

Markings and dimensions



Packaging



SIZE(mm)		
A	B	C
18.71	23.00	522

UNIT: mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1.2	10.11	12	13	15	23.24
SINGLE	+Vin	NO PIN	-Vout	+Vout	NO PIN	-Vin
DUAL	+Vin	COM	NO PIN	-Vout	+Vout	-Vin