



Wide Input Voltage Range 3 Watt Dc-Dc Converter



FEATURES:

- 2:1 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
68D-05S05RNL	4.5-9	5	600	75
68D-05S12RNL	4.5-9	12	250	80
68D-05S15RNL	4.5-9	15	200	80
68D-12S05RNL	9-18	5	600	75
68D-12S12RNL	9-18	12	250	80
68D-12S15RNL	9-18	15	200	80
68D-12D05RNL	9-18	±5	±300	75
68D-12D12RNL	9-18	±12	±125	75
68D-12D15RNL	9-18	±15	±100	75
68D-24S05RNL	18-36	5	600	75
68D-24S12RNL	18-36	12	250	80
68D-24S15RNL	18-36	15	200	80
68D-24D05RNL	18-36	±5	±300	75
68D-24D12RNL	18-36	±12	±125	80
68D-24D15RNL	18-36	±15	±100	80
68D-48S05RNL	36-72	5	600	75
68D-48S12RNL	36-72	12	250	80
68D-48S15RNL	36-72	15	200	80
68D-48D05RNL	36-72	±5	±300	75
68D-48D12RNL	36-72	±12	±125	80
68D-48D15RNL	36-72	±15	±100	80

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
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

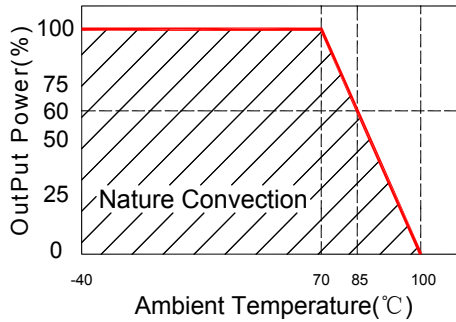
General Specifications

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

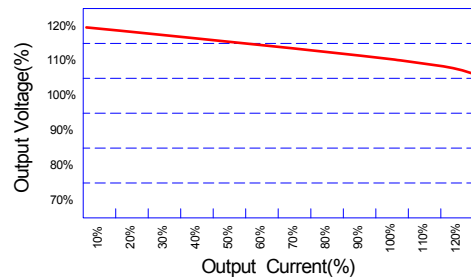


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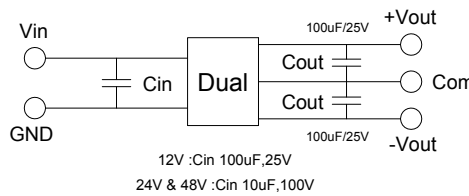
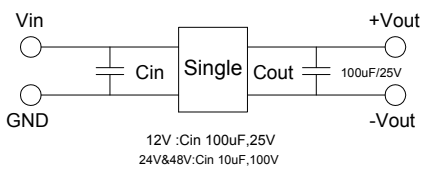
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

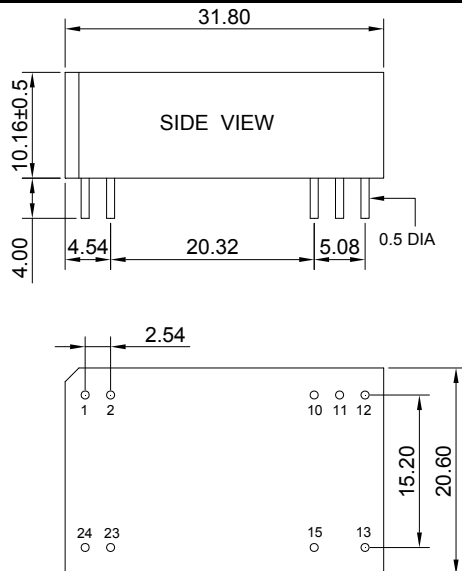


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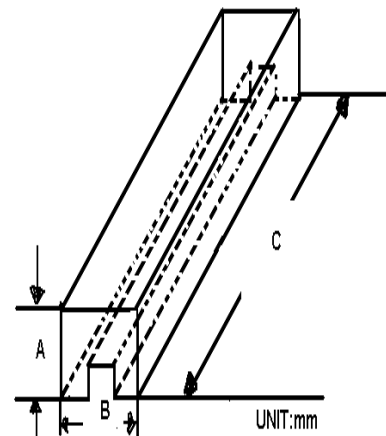
68D - 12 S 05 R NL
A B C D E F

- 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