

**Wide Input Voltage Range 5-6 Watt Dc-Dc Converter**

**FEATURES:**

- 2:1 Wide Input Voltage.
- 5-6 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	Input Current		Efficiency
				NO LOAD	FULL LOAD	
				mA	mA	
68D5-12S03RNL	9-18	3.3	1000	7.5	405	70
68D5-12S05RNL	9-18	5	1000	7.5	545	75
68D5-12S12RNL	9-18	12	470	7.5	585	80
68D5-12S15RNL	9-18	15	400	7.5	625	80
68D5-12D05RNL	9-18	±5	±500	12	545	75
68D5-12D12RNL	9-18	±12	±230	12	575	80
68D5-12D15RNL	9-18	±15	±190	12	590	80
68D5-24S03RNL	18-36	3.3	1000	5	195	70
68D5-24S05RNL	18-36	5	1000	5	265	80
68D5-24S12RNL	18-36	12	470	5	285	80
68D5-24S15RNL	18-36	15	400	5	305	80
68D5-24D05RNL	18-36	±5	±500	7.5	265	80
68D5-24D12RNL	18-36	±12	±230	7.5	285	80
68D5-24D15RNL	18-36	±15	±190	7.5	295	80
68D5-48S03RNL	36-72	3.3	1000	2	98	70
68D5-48S05RNL	36-72	5	1000	2	133	80
68D5-48S12RNL	36-72	12	470	2	145	80
68D5-48S15RNL	36-72	15	400	2	154	80
68D5-48D05RNL	36-72	±5	±500	3	265	80
68D5-48D12RNL	36-72	±12	±230	3	142	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 (F.L To 10% Load)			±0.5	%
Load Regulation	Dual (F.L To 1/4 Load)			±1.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

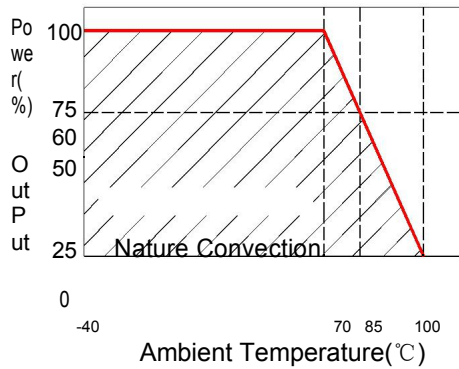
**General Specifications**

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			200		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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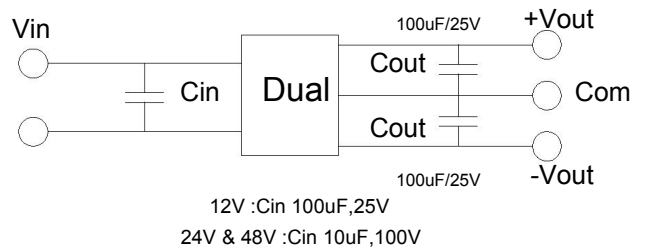
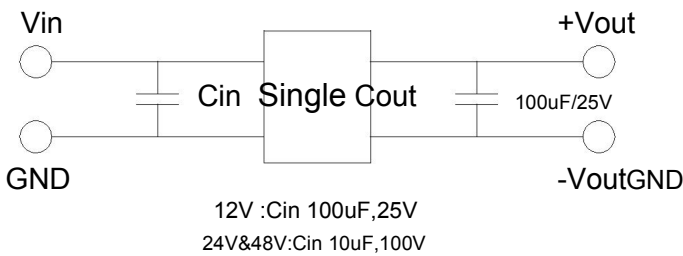
Temperature Derating Graph



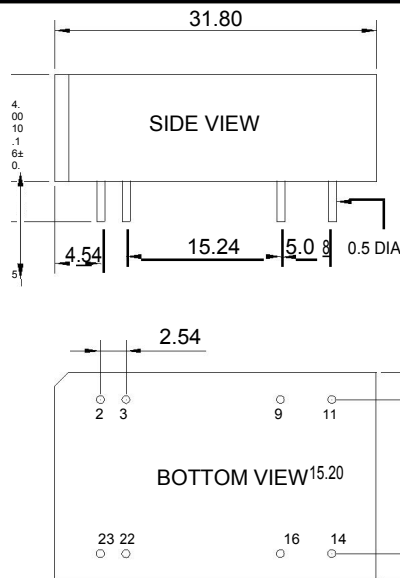
Part Number

68D5 - 12 S 03 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

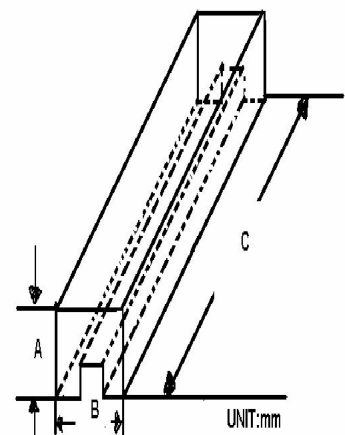
Recommended Test Circuit



Markings and dimensions



Packaging



SIZE(mm)		
A	B	C
18.71	23.00	52.2

UNIT: mm Unless otherwise specified, all tolerances are  $\pm 0.25$

PIN Connection

PIN	2.3	9	11	14	16	22.23
SINGLE	-Vin	NO PIN	NC	+Vout	-Vout	+Vin
DUAL	-Vin	COM	-Vout	+Vout	COM	+Vin