



## Wide Input Range Dc-Dc Converter Mosfet 15watt



### FEATURES:

- 15Watt Isolated Output
- Recognized By UL 60950-1
- Singles Dual And Triples.
- Efficiency To 80%
- Remote ON/OFF Control.
- Wide 4:1 Input Range.
- SIX-Sided Shielding.
- MTBF:>1,500,000 hrs
- 8PIN Package.
- 1500Vdc Isolation
- Operating Temperature:-40°C TO +100°C



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Voltage	Output1 Voltage	Output2 Voltage	Output3 Voltage
	Vdc	Vdc	Vdc	Vdc
87D-24S05RNL	9-36	5@3A		
87D-24S12RNL	9-36	12@1.25A		
87D-24S15RNL	9-36	15@1A		
87D-24D12RNL	9-36		12@0.625A	-12@0.625A
87D-24D15RNL	9-36		15@0.5A	-15@0.5A
87D-24S05RT12RNL	9-36	5@1.5A	12@0.31A	-12@0.31A
87D-24S05RT15RNL	9-36	5@1.5A	15@0.25A	-15@0.25A
87D-48S05RNL	20-72	5@3A		
87D-48S12RNL	20-72	12@1.25A		
87D-48S15RNL	20-72	15@1A		
87D-48D12RNL	20-72		12@0.625A	-12@0.625A
87D-48D15RNL	20-72		15@0.5A	-15@0.5A
87D-48S05RT12RNL	20-72	5@1.5A	12@0.31A	-12@0.31A
87D-48S05RT15RNL	20-72	5@1.5A	15@0.25A	-15@0.25A

### 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	%
Single Voltage Tolerance				±1	%
Dual +Voltage Tolerance				±3	%
Dual -Voltage Tolerance				±1	%
TRIPLE	5V			±5	%
TRIPLE	12V/15V			±2	%
TRIPLE	-5V			±1	%
Short Circuit Protection	Continuous				
Line Regulation	Single/Dual(H.L To L.L)			±0.2	%
Load Regulation	Single/Dual(F.L To 1/4F.L)			±1.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Line Regulation	Triple(H.L To L.L)			±1.0	%
Load Regulation	Triple(F.L To 1/4F.L)			±0.2	%
Transient response	50% load step change		350		us

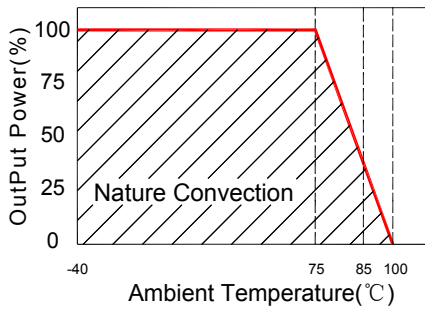
### General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			100		KHz
Operating Temperature		-40		100	°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			72.8		g
Dimensions			50.8x50.8x13.2		mm
Potting Material			Epoxy (UL94V-0 rated)		
Conducted Emissions	EN55022		Class A		
Radiated Emissions	EN55022		Class A		

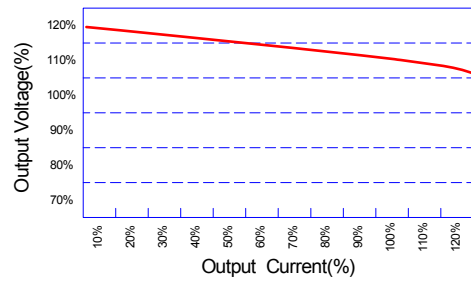


Wide Input Range Dc-Dc Converter Mosfet 15watt

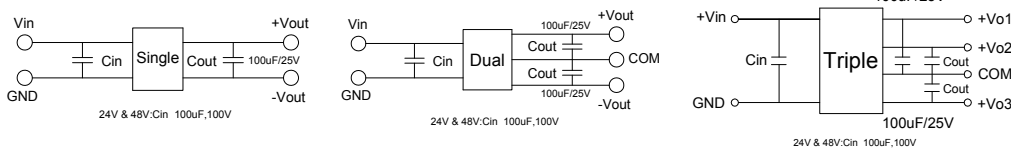
Temperature Derating Graph



Tolerance Envelope Graph



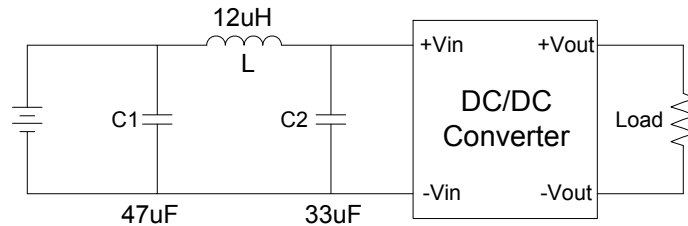
Recommended Test Circuit



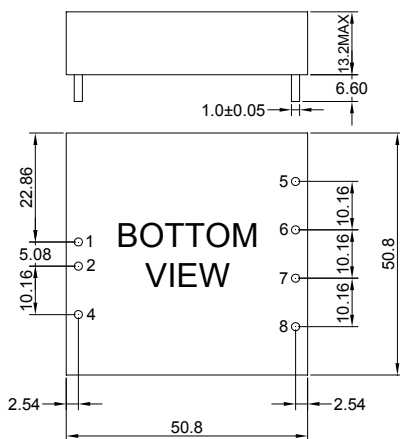
Part Number

87D - 24 S 05 R T 12 R NL  
 A B C D E F G H I  
 A:Series  
 B:Input Voltage  
 C:Single(S)Dual(D)  
 D:Output Voltage  
 E:Regulated(R)  
 F:Triple(T)  
 G:Output Voltage  
 H:Regulated(R)  
 I:RoHS Version

Suggest adding input external filter(C1,C2,L)to meet conducted emissions(EN55022 class A)

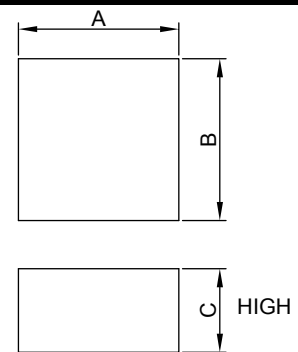


Markings and dimensions



UNIT:mm XX.X±0.5 XX.XX±0.25

Packaging



Size(mm)		
A	B	C
51.50	52.30	27.00

PIN Connection

PIN	1	2	3	4	5	6	7	8
SINGLE	+Vin	-Vin	NO PIN	Control	NO PIN	Output 1	-Output 1	Trim
DUAL	+Vin	-Vin	NO PIN	Control	Output 2	Com	Output 3	Trim
TRIPLE	+Vin	-Vin	NO PIN	Control	Output 2	Output 1	Com	Output 3