

FEATURES:

- 30 Watt DIL Package
- 4:1 Wide Input Voltages
- Efficiency to 86%
- PI Input Filter
- 100% Burned In
- UL 94V-0 Package Material
- Custom Solutions Available
- Regulated Output Types



30 Watt DC-DC Converter
RQ9S-48S04R

Wide Input Voltage Range
30 Watt DC/DC Converter

Input Specifications

Input Voltage:	48Vdc	
Input Voltage Range:	18~75Vdc	@18Vin Min ; 75Vin Max
Under Voltage Shutdown (lock-out circuit)	16Vdc Typ	
Remote On/Off	Open or 3~15Vdc(DC/DC ON) Short or 0~1.2Vdc(DC/DC OFF) -0.5 ~ +1.0 mA 2.0 mA TYP	@Positive logic (Standard) (Refer to -Vin PIN) @Input current of Ctrl pin @Remote off input current

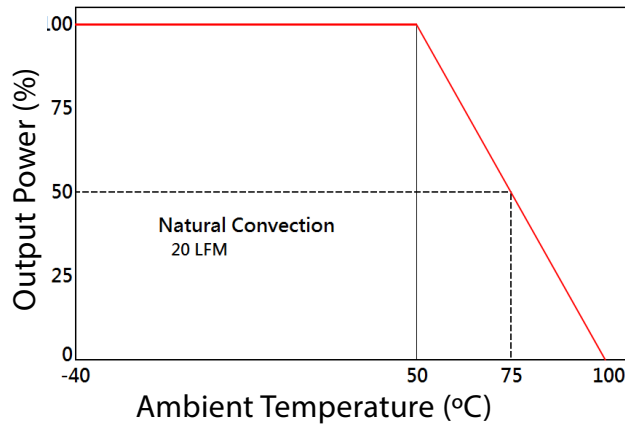
Output Specifications

Output Voltage:	4.2Vdc	
Output Voltage Accuracy:	±2%	@4.116~4.284Vdc @Vin 18~75Vdc
Output Current:	6500mA	
Efficiency:	86% TYP	@Vin= 48Vdc
Ripple / Noise:	100mVp-p MAX	@20MHz Band width , with 22uF*1 MLCC
Short Circuit Protection:	Continuous	@Hiccup,auto-recovery
Line Regulation:	±0.5% MAX	@LL to HL at full Load
Load Regulation:	±5.0% MAX	@25% to 100% Load
Over Voltage Protection	6.3V TYP	@5.6V MIN; 7V MAX
Over Load Protection	170% MAX	@% of lout rated; Hiccup mode

General Specifications

Operating Temperature Range:	-40°C ~ +75°C (with derating)	Output load derate 2% per degree Celsius above 50°C as refer to temperature derating graph.
Storage Temperature:	-55°C ~ +125°C	
Switching Frequency:	275KHz TYP	
Humidity:	95% MAX	
Isolation Voltage:	1500Vdc	
Isolation Resistance:	1000MΩ MIN	
Cooling:	Natural convection	@20LFM
MTBF:	>=1,200,000 Hours	MIL-HDBK-217F@25°C, Ground Benign
Case Material:	Six-side shielded case	
Weight:	22g TYP	
Conducted Emission	EN55032 Class B	(with external components)
Radiated Emission	EN55032 Class B	(with external components)

Temperature Derating Graph

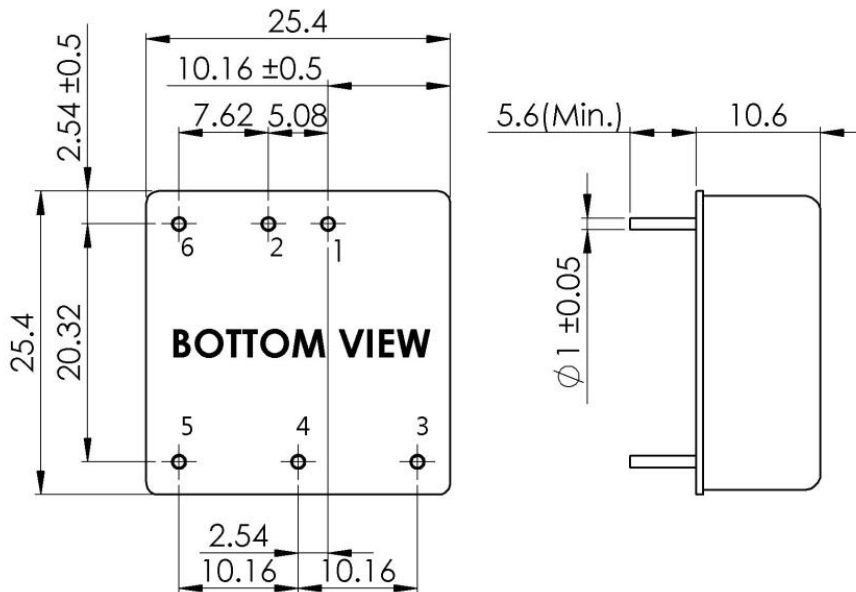


Part Number

RQ9 S - 48 S 04 R
A B C D E F

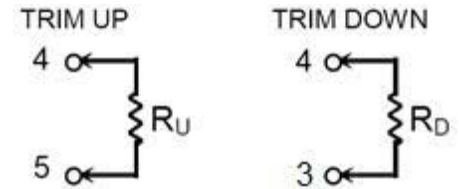
- A: Series
- B: Package
- C: Input Voltage
- D: Single Output (S)
- E: Output Voltage
- F: Regulated (R)

Outline Dimensions



External Output Trimming

Output can be externally trimmed by using the method shown below.

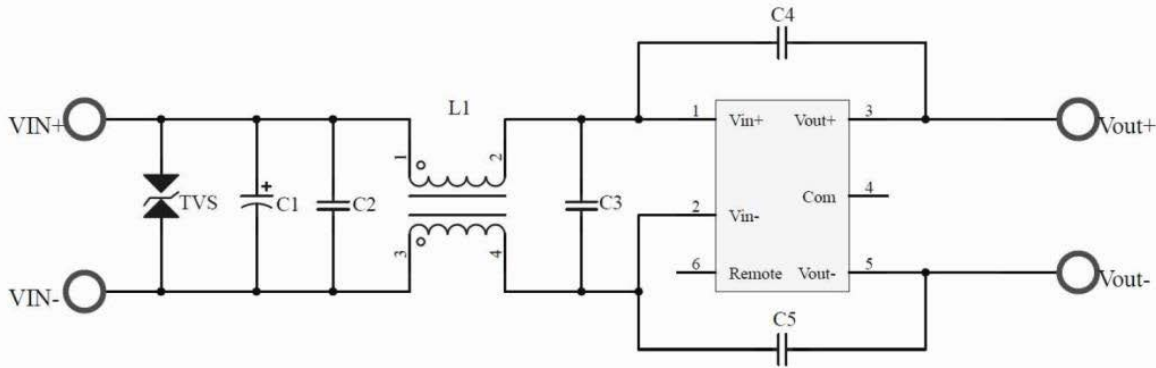


UNIT: mm

Tolerance : XX.X ±0.50, XX.XX ±0.25

Pin	1	2	3	4	5	6
Function	+Vin	-Vin	+Vout	Trim	-Vout	Remote ON/ OFF

Recommended Test Circuit Meets EN55024 Criterion A and EN55032 Class B



24V	C1 220uF/100V	C2&C3 4.7uF/50V	C4&C5 2200pF/2kV	L1 0.94mH	TVS 3.0SMCJ58AG
48V	C1 220uF/100V	C2&C3 4.7uF/100V	C4&C5 3200pF/2kV	L1 6.20mH	TVS 3.0SMCJ120AG

Packaging Information

