

Typical Performance

FEATURES

- Fixed Input, isolation, Unregulated Output,1W
- Isolation voltage: 1000VDC
- DIP package
- Efficiency :up to 80%
- Working temperature -40℃~+85℃
- MTBF≥35x10⁵Hrs
- Industry standard pinout
- Isolation capacitance:90PF
- No external component required
- In line with RoHS codes
- Line regulation (for Vin change of ±1%): ±1.2%(max)
- Load regulation (10%-100% load) 15%
- Ripple and noise (20MHz Band width) <75mVp-p
- Temperature drift(100% full load):±0.03%/℃(max)
- Switching Frequency(Full load,nominal input):100Khz(typ)
- Storage Temperature:-55℃~+125℃
- Isolation Resistance:1000MΩ/1min
- Isolation capacitance:60Pf(typ)
- Cooling:Free aire convection



QR 1 XX S XX S/S3
 ① ② ③ ④ ⑤ ⑥

- ① Series name
- ② Output watt
- ③ Normal input voltage
- ④ Single output
- ⑤ Output voltage
- ⑥ I/O isolation(S:1KV,no S:1.5KV,S3:3KV)

Product Program

Part #	Input voltage range	Nominal output voltage / output current						Efficiency (%, typ)
		VO1			VO2			
		Voltage (VDC)	Min (mA)	Max (mA)	Voltage (VDC)	Min (mA)	Max (mA)	
QR1-03S3V3	3V(3~3.6V)	3.3	30.3	303				72
QR1-03S05		5	20	200				74
QR1-05S05S	5V(4.5~5.5V)	5	20	200				70
QR1-05S09		9	11	111				78
QR1-05S12		12	8.3	83				78
QR1-05S15		15	6.8mA	68mA				80
QR1-05S24		24	4.2mA	42mA				81
QR1-05D05		±5	+10mA	+100mA	-5V	-10mA	-100mA	72

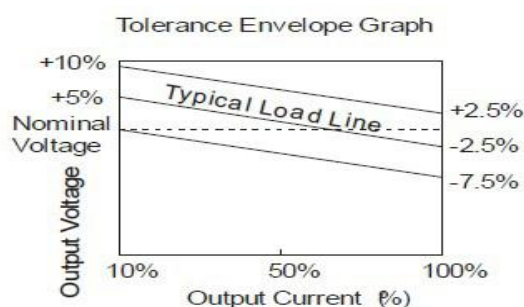
QR1-05D09		±9	+5.5mA	+55mA	-9V	-5.5mA	-55mA	78	
QR1-05D12		±12	+4mA	+40mA	-12V	-4mA	-40mA	79	
QR1-05D15		±15	+3.3mA	+33mA	-15V	-3.3mA	-33mA	80	
QR1-12S3V3	12V(10.8~13.2V)	3.3	30	303				73	
QR1-12S05		5	20	200				71	
QR1-12S09		9	11	111				76	
QR1-12S12		12	8.3	83				78	
QR1-12S15		15	6.8mA	68mA				79	
QR1-12D05		±5	+10mA	+100mA	-5V	-10mA	-100mA	78	
QR1-12D09		±9	+5.5mA	+55mA	-9V	-5.5mA	-55mA	78	
QR1-12D12		±12	+4mA	+40mA	-12V	-4mA	-40mA	79	
QR1-12D15		±15	+3.3mA	+33mA	-15V	-3.3mA	-33mA	78	
QR1-15S05		15V(13.5~16.5V)	5	20	200				79
QR1-15D05			±5	+10mA	+100mA	-5V	-10mA	-100mA	78
QR1-24S05		24V(21.6~26.4V)	5	5	20	200			79
QR1-24S09	9		9	11	111			78	
QR1-24S12	12		12	8.3	83			79	
QR1-24S15	15		15	6.8mA	68mA			78	
QR1-24S24	24		24	4.2mA	42mA			79	
QR1-24D05	±5		+10mA	+100mA	-5V	-10mA	-100mA	78	
QR1-24D09	±9		+5.5mA	+55mA	-9V	-5.5mA	-55mA	79	
QR1-24D12	±12		+4mA	+40mA	-12V	-4mA	-40mA	78	
QR1-24D15	±15		+3.3mA	+33mA	-15V	-3.3mA	-33mA	79	

□ Shows the nominal value of input voltage, due to space limitations, the above list is only for some products, if other than a list of products, please contact the Company's sales department.

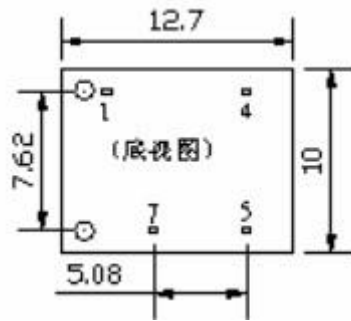
Mechanical Data

Packing Code	L x W x H : mm	Packing No.
B	12.7*10*7.7	

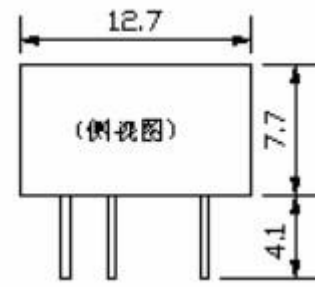
Typical Temperature Curve



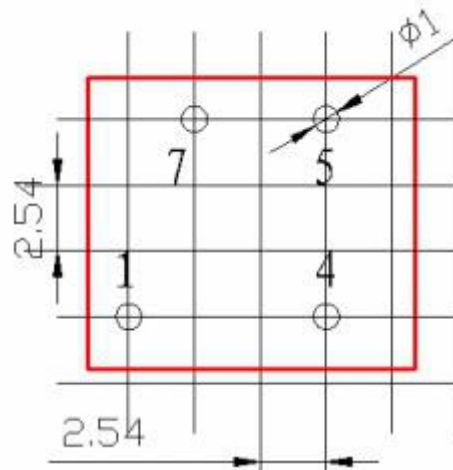
Mechanical Dimension



BOTTOM VIEW



LATERAL VIEW



Recommended PCB Layout

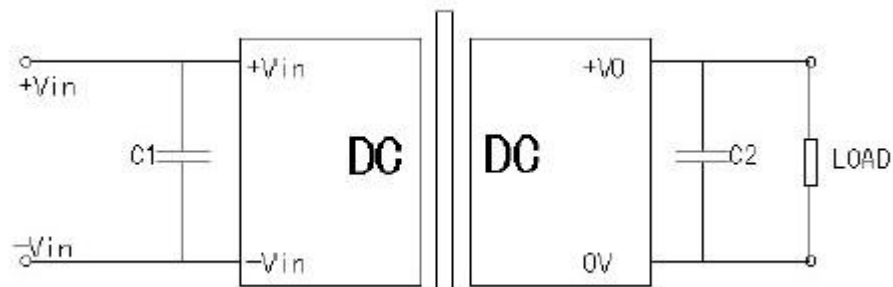
UNIT:mm

B Package

Pin Assignment

PIN	1	4	5	7					
S	GND	Vin	+Vo	0V					

Recommend Circuit



C1、C2 select

INPUT VOLTAGE	C1	Single O/P VOLTAGE	C2
3.3VDC	4.7uF	3.3/5VDC	10uF

5VDC	4.7uF	9VDC	4.7uF
12VDC	2.2uF	12VDC	2.2uF
15VDC	1uF	15VDC	1uF
24VDC	1uF	24VDC	0.47uF

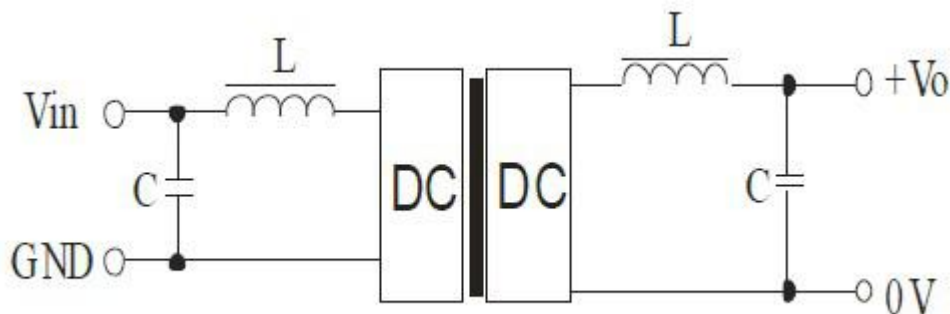
Application Note

(1)Pls don't use under no load: when the load power is less than 10% of the rated power ,we advise to connect the resistance following the output or the selection the smaller rated power module,for the resistance,the value is 5~10% of the rated power, $\text{resistance} = U_2 / (10\% \times 2W)$

(2)Pls don't connect the excessive capacitor in external circuit :output connects C2's value can't be too big,, otherwise easily lead to module startup flow or poor starting,

According to the external table to select the capacitance

(3)For the ripple&noise with higher requirements ,we advise to connect the LC filter, the frequency of LC filter is far smaller than the DC / DC module switching frequency, prevent mutual interference, resulting in increased the ripple damage the power module,pls see below



*Note: The power modules such as the definition of the pin does not match with the hand book,please refer to the actual item.