

**KEY FEATURES**

- Power Module for PCB Mountable
- High Efficiency and Reliability
- 4:1 Wide Input Range
- Single Output
- Regulated Output
- Low Ripple and Noise
- 3-Years Product Warranty


**ELECTRICAL SPECIFICATIONS**

Model No. ( Single Output )	ZC05-24F-3.3S	ZC05-24F-5S	ZC05-24F-12S	ZC05-24F-15S	ZC05-24F-24S
Max Output Wattage (W)	5W	5W	6W	6W	6W
Input Voltage (V.DC.) (Note 3)	24V (9-36V)	24V (9-36V)	24V (9-36V)	24V (9-36V)	24V (9-36V)
Output Voltage (V.DC.)	3.3V/1520mA	5V/1000mA	12V/500mA	15V/400mA	24V/250mA
Efficiency (typ.) (at 12V.DC)	72%	75%	81%	79%	80%
Capacitor Load (max)	10000 uF	5000 uF	300 uF	300 uF	100 uF

Model No. ( Single Output )	ZC05-48F-3.3S	ZC05-48F-5S	ZC05-48F-12S	ZC05-48F-15S	ZC05-48F-24S
Max Output Wattage (W)	4W	5W	6W	6W	6W
Input Voltage (V.DC.) (Note 3)	48V (18-75V)	48V (18-75V)	48V (18-75V)	48V (18-75V)	48V (18-75V)
Output Voltage (V.DC.)	3.3V/1520mA	5V/1000mA	12V/500mA	15V/400mA	24V/250mA
Efficiency (typ.) (at 24V.DC)	74%	77%	81%	81%	81%
Capacitor Load (max)	10000 uF	9000 uF	390 uF	300 uF	100 uF

Model No. ( Single Output )	ZC05-24F-3.3S ZC05-48F-3.3S	ZC05-24F-5S ZC05-48F-5S	ZC05-24F-12S ZC05-48F-12S	ZC05-24F-15S ZC05-48F-15S	ZC05-24F-24S ZC05-48F-24S	
Max Output Wattage (W)	4W	5W	6W	6W	6W	
Input	Input Filter $\pi$ type					
Output	Voltage (V.DC.)	3.3	5	12	15	24
	Voltage Accuracy	$\pm 2\%$				
	Current (mA) max	1520	1000	500	400	250
	Line Regulation (LL-HL) (typ.)	$\pm 0.5\%$				
	Load Regulation (10-100%) (typ.)	$\pm 3\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
	Minimum Load	0%				
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Noise	<0.5% Vout +50mV max (Vp-p)				
Switching Frequency	300KHz					
Protection	Over Power Protection	Above 105% Rated Output Power				
	Short Circuit Protection	Current limit, auto-recovery				
Isolation	Voltage	1600 VDC.				
	Resistance	$10^8$ ohms				
	Capacitance	1000 pF				
Environment	Operating Temperature	-25°C...+70°C (with derating)				
	Storage Temperature	-55°C...+105°C				
	Case Temperature	+100°C max.				
	Temperature Coefficient	$\pm 0.02\%$ Per°C				
	Humidity	95% RH				
	MTBF	>1000,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	1.25 x 0.8 x 0.4 Inches ( 31.8 x 20.3 x 10.2 mm ) Tolerance $\pm 0.5$ mm				
	Case Material	Six-side shielded Aluminum with Non-Conductive base, Black Anodize				
	Weight	20 g				
	Cooling Method	Free-air convection				

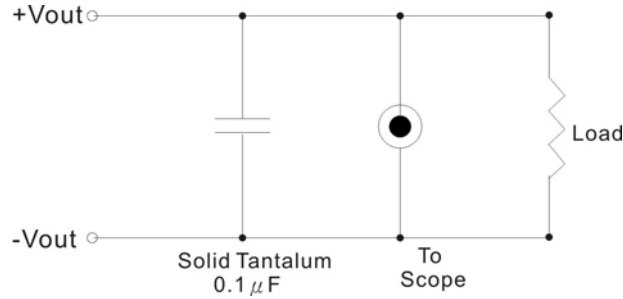
1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

2.Ripple &amp; Noise are measured at 20MHz of bandwidth with 0.1uF &amp; 47uF parallel capacitor.

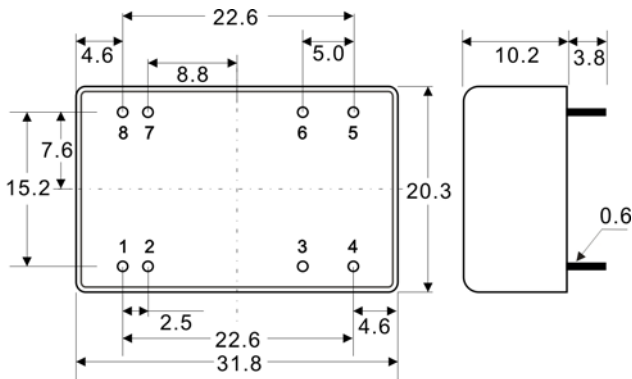
3.If Input Voltage &lt;10 VDC needs 1% Minimum Load.

**OUTPUT NOISE**

The output noise is measured with 0.1μF tantalum capacitor



**MECHANICAL DIMENSION ( Top View )**

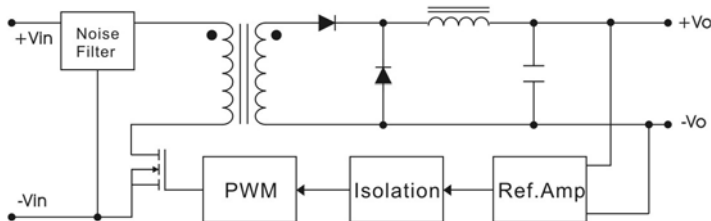


Tolerance ±0.5 mm

PIN#	Single
1	-VIN
2	-VIN
3	NC
4	NC
5	+VOUT
6	-VOUT
7	+VIN
8	+VIN

**BLOCK DIAGRAM**

**Single Output**



**DERATING**

