

IRM-02 Series

2W Single Output Encapsulated Power Supply



Case No: 8913DF ~ SMD style: 33.7 x 22.2 x 16mm
Case N0: 8916GV ~ PCB mounting style: 33.7 x 22.2 x 15mm

Features

- Universal AC input / Full range
- Compact size
- Protections: Short circuit / Overload / Over Voltage
- Cooling by free air convection
- Isolation class II
- No load power consumption <0.075W
- Comply with EN55022 Class B without any additional components
- High reliability, low cost
- 3 years warranty



Specification

INPUT	Voltage	85 ~ 305V 120 ~ 430VDC					
	Frequency	47 ~ 63Hz					
	AC Current	45mA/115VAC		30mA/230VAC		25mA/277VAC	
	Inrush Current	5A/115VAC		10A/230VAC			
	Leakage Current	<0.25mA/277VAC					
	Efficiency	66%	70%	72%	74%	75%	77%
OUTPUT	MODEL No.	IRM-02-3.3	IRM-02-5	IRM-02-9	IRM-02-12	IRM-02-15	IRM-02-24
	DC Voltage	3.3V	5V	9V	12V	15V	24V
	Rated Current	600mA	400mA	222mA	167mA	133mA	83mA
	Current Range	0 ~ 600mA	0 ~ 400mA	0 ~ 222mA	0 ~ 167mA	0 ~ 133mA	0 ~ 83mA
	Rated Power	2W	2W	2W	2W	2W	2W
	R & N (max)	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage Tolerance	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Setup, Rise Time	600ms, 30ms/230VAC 600ms, 30ms/115VAC at full load					
	Hold Up Time	40ms/230VAC 12ms/115VAC at full load					
PROTECTION	Overload	≥110% rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed					
	Over Voltage	3.8~4.9V	5.2~6.8V	10.3~12.2V	12.6~16.2V	15.7~20.3V	25.2~32.4V
ENVIRONMENT	Working Temperature	-30 ~ +85°C (Refer to "Derating Curve")					
	Working Humidity	20 ~ 90% RH non-condensing					
	Storage Temp.	-40°C to +100°C, 10~95% RH					
	Temp. Coefficient	±0.03%/°C (0~75°C)					
	Vibration	10 ~ 500Hz, 5G 10min./1 cycle, period for 60 min. each long X, Y, Z axes					
SAFETY & EMC	Safety Standards	UL60950-1, TUV EN60950-1 approved, Optional IEC60601-1, EN60335-1, EN61558-1/-2-16					
	Withstand Voltage	I/P-O/P:3KVAC					
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC Emission	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3					
OTHERS	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level (surge L-N:1KV), criteria A					
	MTBF	1960Khrs min. MIL-HDBK-217 (25°C)					
	Packaging	PCB mounting style 0.019Kg:640pcs/13.2Kg/0.95CUFT SMD style: 0.019Kg: 640pcs/13.2Kg/0.95CUFT					

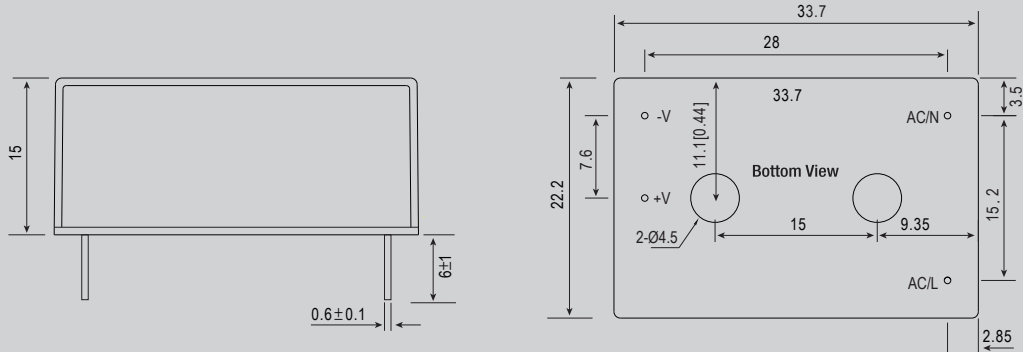
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.

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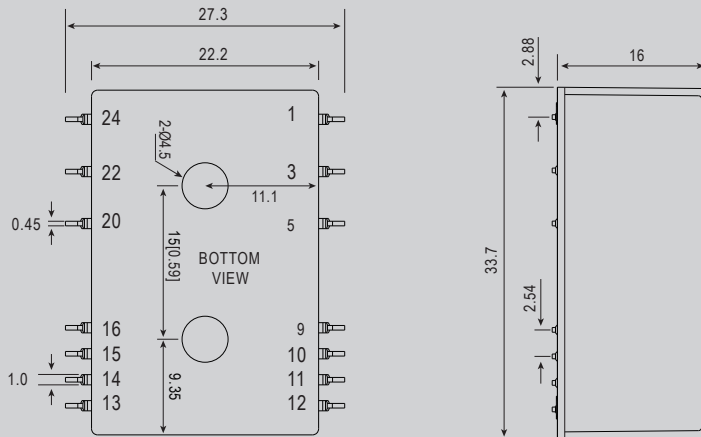
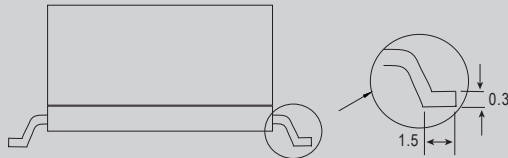
Mechanical Specification

PCB mounting style



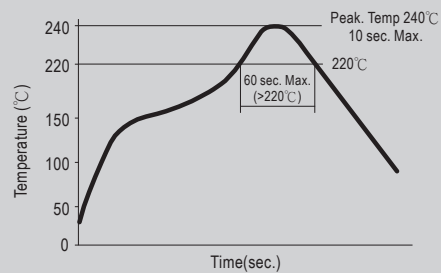
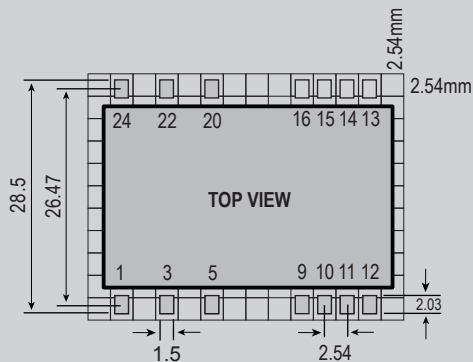
Tolerance: ±0.5 unless otherwise specified

SMD style



Pin No.	Assignment
1	AC/L
24	AC/N
13	-Vo
12	+Vo
others	N.C.

Recommended PCB layout (for SMD style) (Reflow soldering method available)

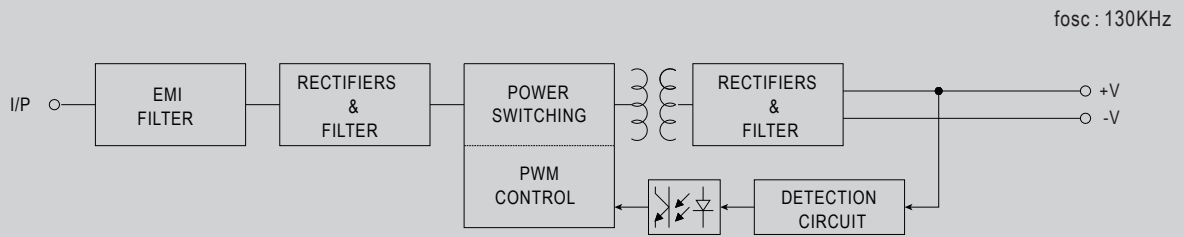


Remark : The curve applies only to the " Hot Air Reflow Soldering "

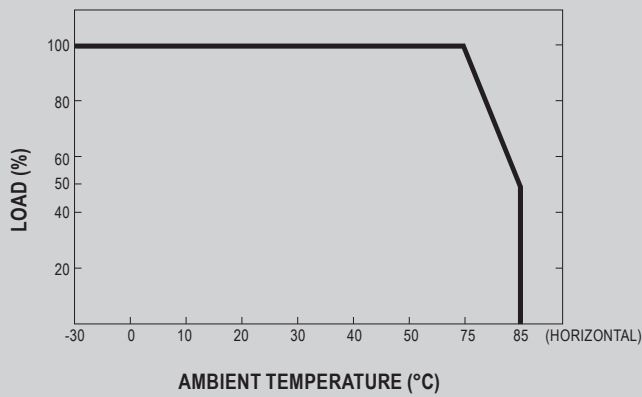
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Block Diagram



Derating Curve



Static Characteristics

