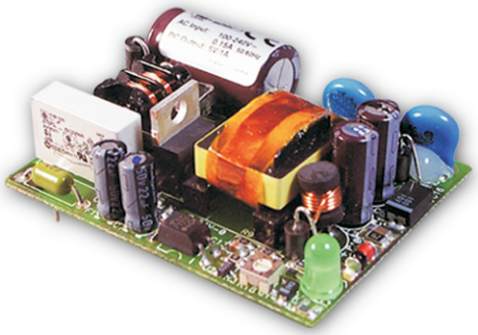
5W Output Switching Power Supply

OFM-5000 series



Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Ultra-miniature size, light weight
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 100KHz
- Low cost
- High reliability
- 2 years warranty

(LVD)

SPECIFICATION

MODEL		OFM-5001	OFM-5002	OFM-5003	OFM-5005
OUTPUT	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	1A	0.42A	0.33A	0.23A
	CURRENT RANGE	0 ~ 1A	0 ~ 0.42A	0 ~ 0.33A	0 ~ 0.23A
	RATED POWER	5W	5.04W	4.95W	5.52W
	RIPPLE & NOISE (max.) Note.2	50mVp-p	150mVp-p	150mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.3%	±0.3%	±0.2%
	LOAD REGULATION	±2.0%	±1.0%	±1.0%	±0.5%
	SETUP, RISE TIME	150ms, 20ms/230VAC 150ms, 20ms/115VAC at full load			
	HOLD UP TIME (Typ.)	120ms/230VAC 24ms/115VAC at full load			
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 440Hz			
	EFFICIENCY (Typ.)	63%	67%	67%	68%
	AC CURRENT (Typ.)	0.13A/115VAC 0.11A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 12A/115VAC 24A/230VAC			
PROTECTION	OVERLOAD	Above 150% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V
		Protection type : Shut off o/p voltage, clamping by zener diode			
	OVER TEMPERATURE	Tj 145℃ typically (U1) detect on main control IC			
		Protection type : Shut down o/p voltage, re-power on to recover			
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min.each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL1950, TUV EN60950 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC			
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	Compliance to EN50081-1, EN50082-1			
OTHERS	MTBF	552.5Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	58*45*22mm (L*W*H)			
	PACKING	0.04Kg; 120pcs/5.6Kg/0.97CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.				

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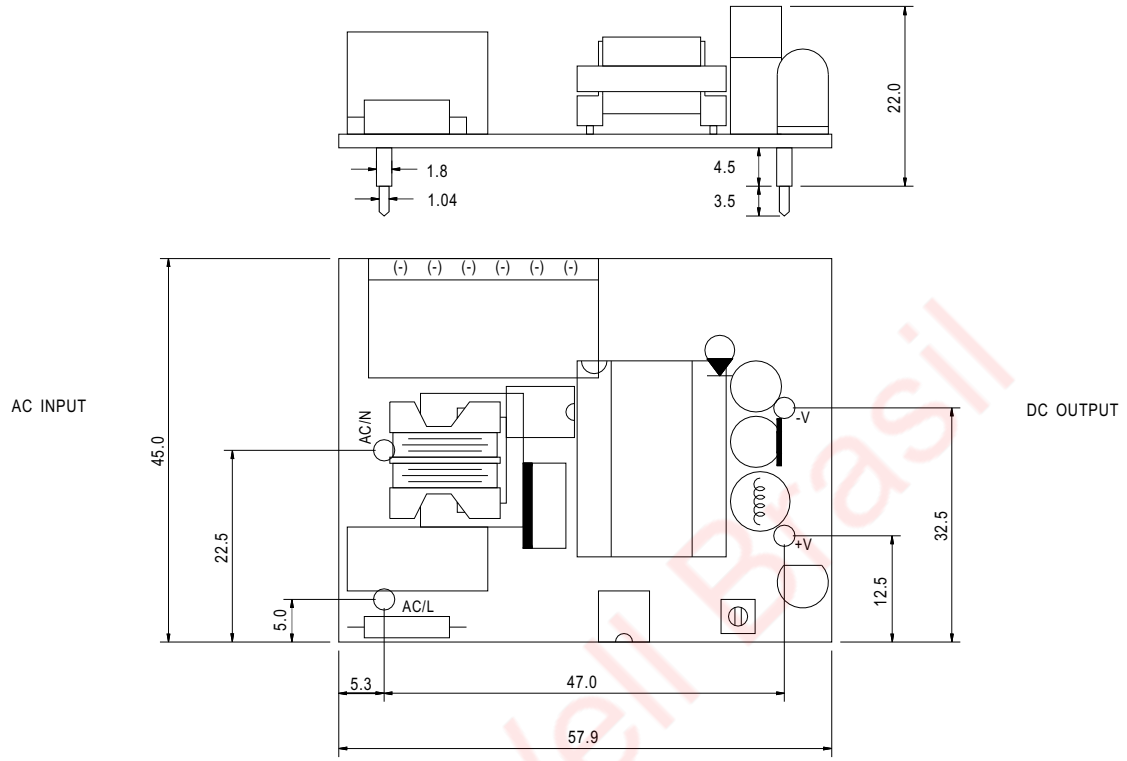
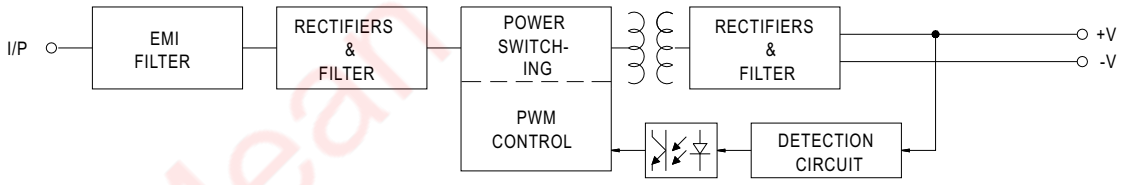
■ Mechanical Specification

Unit:mm

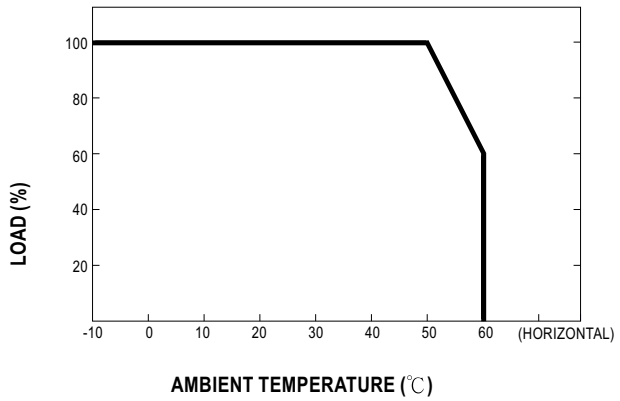


■ Block Diagram

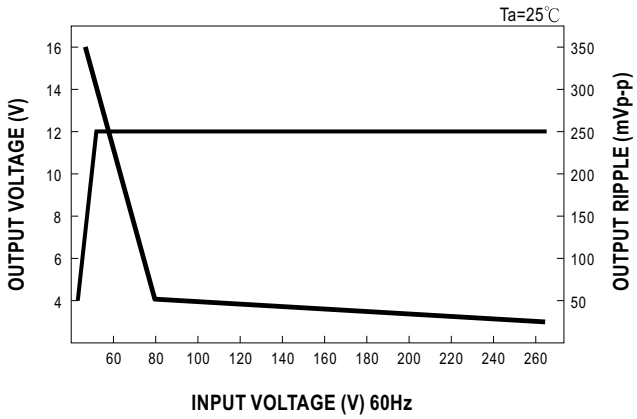
fosc : 100KHz



■ Derating Curve



■ Static Characteristics (12V)



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