



VMF02(H6) Series 2 Watts

2W SINGLE OUTPUT
 FIXED INPUT
 ISOLATED & UNREGULATED
 UTRALMINATURE SMD PACKAGE
 LOW COST
 SHORT LEAD TIME
 HIGH POWER DESNSITY

- 6KVDC Isolation
- Temperature Range: -40°C~+85°C
- RoHS Compliance
- High Efficiency up to 80%
- Industry Standard Pin Configuration
- UL94-V0 Package
- Continuous by Short Circuit Protection

Product Program

Part Number	Input Voltage (VDC)		Output Voltage (VDC)	Output Current (mA)		Efficiency (% Typ)	Package Style
	Nominal	Range		Max	Min		
	VMF02-05S05H6	5		4.5-5.5	5		
VMF02-12S05H6	12	10.8-13.2	5	400	40	79	SMD
VMF02-12S12H6	12	10.8-13.2	12	167	17	79	SMD
VMF02-12S15H6	12	10.8-13.2	15	133	33	80	SMD
VMF02-24S03H6	24	21.6-26.4	3.3	400	40	73	SMD
VMF02-24S05H6	24	21.6-26.4	5	400	40	77	SMD
VMF02-24S15 H6	24	21.6-26.4	15	133	13	80	SMD

ISOLATION SPECIFICATIONS

Item	Test conditions	Min	Typ	Max	Units
Isolation voltage	Tested for 1 minute	6000			VDC
Isolation resistance	Test at 500VDC	1000			MΩ

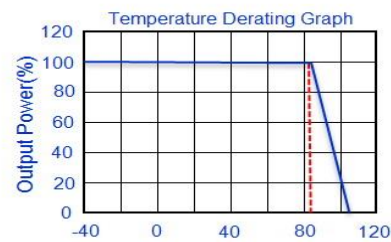
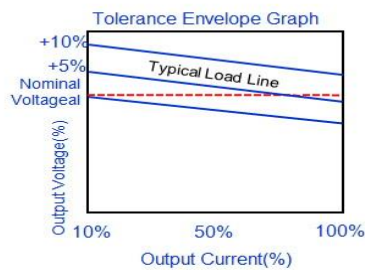
COMMON SPECIFICATION

Short circuit protection	1second
Temperature rise at full load	25°C MAX, 15°C TYP
Cooling	Free air convection
Operating temperature range	-40°C~+85°C
Storage temperature range	-55°C ~+125°C
Lead temperature	300°C (1.5mm from case for 10 seconds)
Storage humidity range	≤ 95%
Case material	Plastic (UL94-V0)
MTBF	>3,500,000 hours
Wight	5.5g
Dimension	23.86*18.10*8.00mm

OUTPUT SPECIFICATION

Item	Test conditions	MIN	TYP	MAX	Units
Output power		0.1		2	W
Line regulation	For V_{in} change of 1% (3.3V output) (Others output)			± 1.5 ± 1.2	%
Load regulation	10% to 100% load (3.3V output) 10% to 100% load (5V output) 10% to 100% load (12V output) 10% to 100% load (15V output)		15 12 8 7	20 15 15 15	%
Output voltage accuracy					See tolerance envelope graph
Temperature drift	100% full load			± 0.03	%°C
Ripple & Noise	20MHz Bandwidth		150	200	mVp-p
Output Short Circuit Protection	Continuous self recovery				
Switching frequency	Full load, nominal input		80		KHz

TYPICAL CHARECTERISTICS



FOOTPRINT DETAILS

PIN	1	7	8	9	10	16
SINGLE	-Vin	NC	NC	+Vo	Common	+Vin

RECOMMENDED CIRCUIT

To add a filter capacitor (Figure 1) to reduce the input and output ripple, to choose suitable capacitance (C_{in} , C_{out}) is important. When the capacitance is too large may cause start up problem. To ensure the proper capacitance, please see Table 3.

For output voltage regulation, over voltage ,and over current protection, adding a linear voltage regulator with overheat protection (Figure 2)

V_{in}	C_1	V_{out}	C_2
3.3/5VDC	4.7uF	3.3/5VDC	10uF
12VDC	2.2uF	9VDC	4.7uF
15VDC	2.2	12VDC	2.2uF

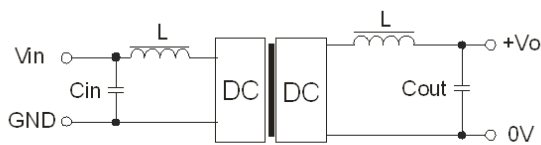
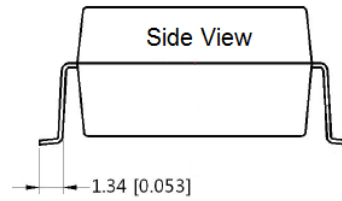
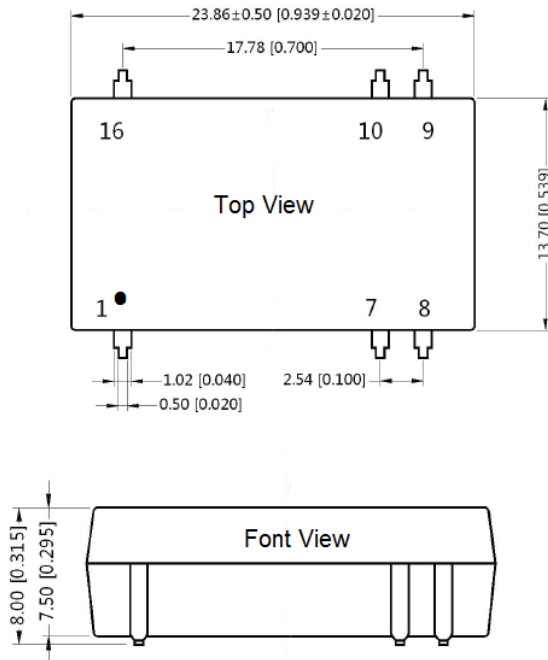


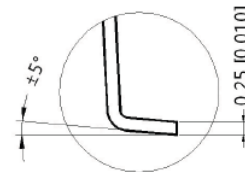
Figure 1



Figure 2



Side Pin View



Dimensions: mm (Inch)
 Pin tolerance: ± 0.10 (± 0.004)
 Pin pitch tolerance: ± 0.25 (± 0.01)