Professional Power Module

-1 &G- -1 Series

Order code	Input Voltage (V)	Output Voltage (V)	Output Current (MA)	Ripple&Noise[2] (MA)	Efficienc (%)	Isolationt Capacitane (PF)	MTTF[1] (KHRS)
G0505XM-1W	5	5	100	40	60	3.0	4950
G0509XM-1W	5	9	55	30	65	3.0	3832
G0512XM-1W	5	12	42	20	65	3.0	2770
G0515XM-1W	5	15	33	20	65	3.0	1903
G1205XM-1W	12	5	100	40	60	3.0	3688
G1209XM-1W	12	9	55	30	65	3.0	3029
G1212XM-1W	12	12	42	20	65	3.0	2324
G1215XM-1W	12	15	33	20	65	3.0	1682
G2424XM-1W	24	24	21	20	64	3.0	1580
H0303XM-1W	3.3	3.3	303	70	66	3.0	13780
H0503XM-1W	5	3.3	303	60	64	3.0	13460
H0505XM-1W	5	5	200	50	68	3.0	13360
H0509XM-1W	5	9	111	50	72	3.0	12700
H0512XM-1W	5	12	83	50	71	3.0	11490
H0515XM-1W	5	15	66	50	71	3.0	9980
H1205XM-1W	12	5	200	50	69	3.0	8447
H1209XM-1W	12	9	111	50	73	3.0	8176
H1212XM-1W	12	12	83	50	73	3.0	7660
H1215XM-1W	12	15	66	50	74	3.0	6950
H2424XM-1W	24	24	42	50	74	3.0	6840

-1 05 05③ ④ ⑤-1 ⑥

RoHS MICRODC Green Technology

CE

C AC E C

Parameter	Conditions	Min.	T p.	Ma...	Units
Rated Power[1]	TA=-40 to 60			1	W
Voltage Set Point	See tolerance envelope				
Line regulation	High Vin to low Vin		1.0	1.2	%%
Load regulation Single outputs	10% load to rated load, ...03		10.0	15.0	%
	10% load to rated load,0505		7.0	10.0	
	10% load to rated load,0509,0512,0515		6.0	10.0	
	10% load to rated load,12...		5.0	7.0	
Load regulation Dual outputs	10% load to rated load,5V output t pes		10.0	15.0	
	10% load to rated load,9V output t pes		6.0	10.0	%
	10% load to rated load,12V output t pes		6.0	10.0	
	10% load to rated load,15V output t pes		6.0	10.0	
Zero Load Power			250		MW

A C AC E C

Parameter	Conditions	Min.	T p.	Ma...	Units
Isolation test voltage	Flash tested for 1 second	6000			VDC
Resistance	Viso=500VDC		1		G
Isolation voltage	I/O isolation voltage	3000			VAL rms
Isolation capacit	Input/Output		10		pF
Isolation resistance	Input/Output		>1000		M ohm

GE E A

EC CA E

"Hi Pot Test","Flash Tested","Withstand Voltage","Proof Voltage","Dielectric Withstand Voltage"& Isolation Test Voltage" are all terms that relate to the same thing, a test voltage. Applied for a specified time, across a component designed to provide electrical isolation, to verif the integrit of that isolation.
Professional Power Module H_XM-1W&G_XM-1W series of DC/DC converters are all 100% production tested at their stated isolation voltage. This is 6KVDC for 1 second.

A question commonl asked is,"What is the continuous voltage that can be applied across the part in normal operation?"

The H_XM-1W&G_XM-1W series has been recogni ed b Underwriters Laborator to 300Vrms for Supplementar Insulation and 150Vrms for Reinforced Insulation.

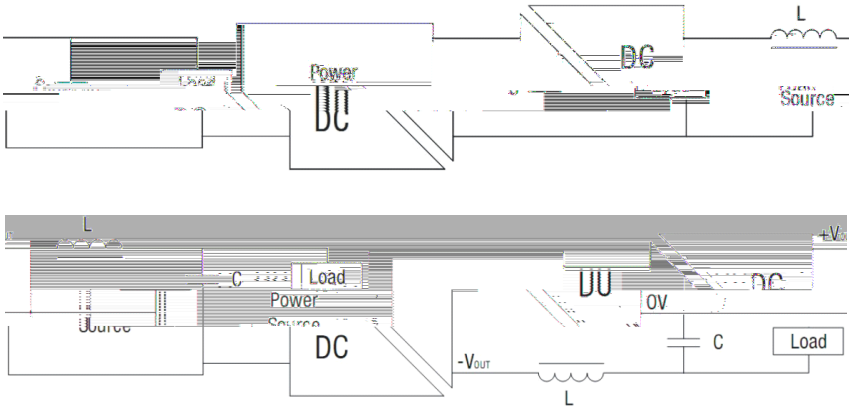
It is well known that repeated high-voltage isolation testing of a barrier component can actuall degrade isolation capabilit , to a lesser or greater degree depending on materials. Construction and environment. We therefore strongl advise against repeated high voltage isolation testing. but if it is absolutel required, that the voltage be reduced b 20% from specified test voltage.

E ED C

B using the values of inductance and capacitance stated, the output ripple at the rated load is lowered to 5mV p-p ma .

Capacitor: Ceramic chip capacitors are recommended. It is required that the ESR(Equivalent Series Resistance)should be as low as possible.X7R t pes are recommended. The voltage rating should be at least twice(e cept for 15V output),the rated output voltage of the DC/DC converter.

Inductor: The rated current of the inductor should not be less than of the output of the DC/DC converter. At the rated current, the DC resistance of the inductor should be such that the voltage drop across the inductor is <2% of the rated voltage of the DC/DC converter. The SRF(Self Resonant Frequenc) should be >20MH .

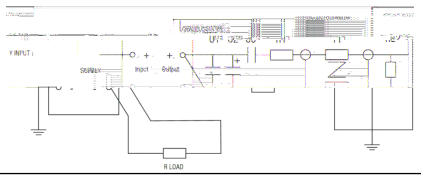


E ED C

Ripple & Noise Characterisation Method

Ripple and noise measurements are performed with the following test configuration.

C1	1uF X7R multila er ceramic capacitor, voltage rating to be a minimum of 3 times the output voltage of the DC/DC converter
C2	10uF tantalum capacitor, voltage rating to be a minimum of 1.5 times the output voltage of the DC/DC converter
C3	100nF multila er ceramic capacitor, general purpose
R1	450 resistor, carbon film, 1% tolerance
R2	50 BNC termination
T1	3T of the co a cable through a ferrite toroid
RLOAD	Resistive load to the ma imum power rating of the DC/DC converter. Connections should be made via twisted wires
R3	50 resistor, carbon film, 1%
Measured values are multiplied b 10 to obtain the specified values.	

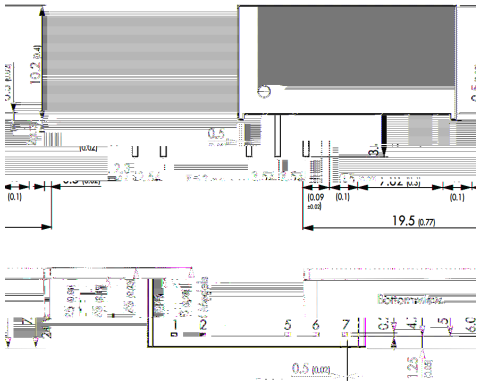


Professional Power Module

-1 &G- -1 Series

AC AGE EC E CA

EC CA D E



*Pin not fitted on single output variants.
All dimensions in inches 0.01(mm 0.25mm).All pins on a 0.1(2.54) pitch and within 0.01(0.25)of true position.
Weight: 4.0g

C EC

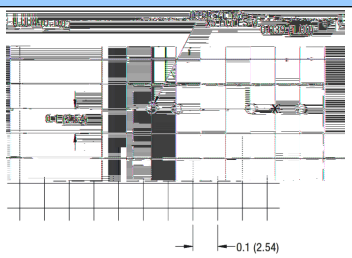
G E

C EC -7	
1	+VIN
2	-VIN
5	-VOUT
7	+VOUT

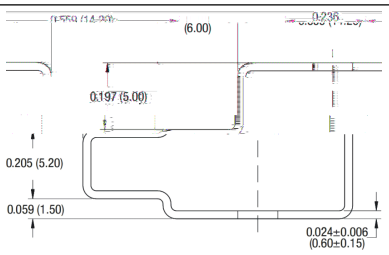
D A

C EC -7	
1	+VIN
2	-VIN
5	-VOUT
6	0V(COMMON)
7	+VOUT

EC E DED F DE A



*Hole not required for single output variants.
Unless otherwise stated all dimensions in inches 0.01(mm 0.25mm).



Unless otherwise stated all dimensions in inches 0.02(mm 0.5mm).
Tube length(7 Pin SIP):20.669(525mm 2mm).
Tube Quantit :25

MICRODC
Professional Power Module
Microdc Professional Power Module,Inc.
Tel:0086-20-86000646 E-mail:tech@microdc.cn
Website:http://www.microdc.cn

This series is compatible with RoHS soldering s stems with a peak wave solder temperature of 300 C for 10 seconds.
The pin termination finish on the SIP package t pe is Tin Plate, Hot Dipped over Matte Tin with Nickel Preplate. The DIP t pes are Matte Tin over Nickel Preplate. Both t pes in this series are backward compatible with Sn/Pb soldering s stems.

This series has proven that this product does not contain harmful chemicals, it also has harmful chemical substances through the registration, inspection and approval.