



## FEATURES

- ◆ Input 5, 12 and 24 VDC
- ◆ Output 3.3, 5, 7.2, 9, 12, 15, 18 & 24VDC
- ◆ Typical at +25°C, nominal input voltage, rated output current unless otherwise specified
- ◆ DIP8 package
- ◆ Operating Temperature: -40°C ~ + 85°C
- ◆ 1000VDC Isolation
- ◆ Short circuit protection (automatic recovery)
- ◆ No external component required
- ◆ MTBF > 1,000,000 hours
- ◆ RoHS Compliance

## MODEL SELECTION

A<sup>①</sup>05<sup>②</sup>05<sup>③</sup>X<sup>④</sup>MD<sup>⑤</sup>

- ① Product Series
- ② Input Voltage
- ③ Output Voltage
- ④ Fixed Input
- ⑤ MINI DIP8 Package

## APPLICATIONS

The A-XMD series are specially designed for applications where a group of polar power supplies are isolated from the input power supply in a distributed power supply system on a circuit board.

These products apply to:

- 1) where the voltage of the input power supply is fixed (voltage variation  $\leq \pm 10\%$ );
- 2) where isolation is necessary between input and output (isolation voltage  $\leq 1000\text{VDC}$ );
- 3) where the regulation of the output voltage and the output ripple noise are not demanded.



**CE REACH**  
MICRODC RESERVES THE COPYRIGHT

## SELECTION GUIDE

Model	INPUT VOLTAGE (V)	OUTPUT VOLTAGE (V)	OUTPUT CURRENT MAX	ISOLATION (VDC)	MAX CAPACTIVE Load	EFFICIENCY (%)
A0503XMD	4.5-5.5	±3.3	±150	1000	±100	63
A0505XMD	4.5-5.5	±5	±100	1000	±100	72
A0507XMD	4.5-5.5	±7.2	±70	1000	±100	75
A0509XMD	4.5-5.5	±9	±55	1000	±100	78
A0512XMD	4.5-5.5	±12	±42	1000	±100	80
A1515XMD	4.5-5.5	±15	±34	1000	±100	80
A0518XMD	4.5-5.5	±18	±28	1000	±100	78
A0524XMD	4.5-5.5	±24	±21	1000	±100	78
A1203XMD	10.8-13.2	±3.3	±150	1000	±100	70
A1205XMD	10.8-13.2	±5	±100	1000	±100	72
A1207XMD	10.8-13.2	±7.2	±70	1000	±100	71
A1209XMD	10.8-13.2	±9	±55	1000	±100	76
A1212XMD	10.8-13.2	±12	±42	1000	±100	80
A1215XMD	10.8-13.2	±15	±34	1000	±100	80
A1218XMD	10.8-13.2	±18	±28	1000	±100	76
A1224XMD	10.8-13.2	±24	±21	1000	±100	78
A2403XMD	21.6-26.4	±3.3	±150	1000	±100	76
A2405XMD	21.6-26.4	±5	±100	1000	±100	72
A2407XMD	21.6-26.4	±7.2	±70	1000	±100	73
A2409XMD	21.6-26.4	±9	±55	1000	±100	77
A2412XMD	21.6-26.4	±12	±42	1000	±100	82
A2415XMD	21.6-26.4	±15	±34	1000	±100	82
A2418XMD	21.6-26.4	±18	±28	1000	±100	75
A2424XMD	21.6-26.4	±24	±21	1000	±100	80

### Input Specifications

Voltage range	±10 %
Filter	Capacitors

### Isolation Specifications

Rated voltage	1000 VDC
Leakage current	1 mA
Resistance	10 <sup>9</sup> Ohm
Capacitance	60 pF typ.

### Output Specifications

Voltage accuracy	±5 % max.
Ripple and noise (at 20 MHz BW)	100 mV p-p, max.
Short circuit protection	Momentary
Line voltage regulation	±1.2 % / 1.0 % of Vin
Load voltage regulation	±8 % load = 20 ~ 100 %
Temperature coefficient	±0.02 % / °C

### General Specifications

Efficiency	75 % to 85 %
Switching frequency	80 KHz, typ.

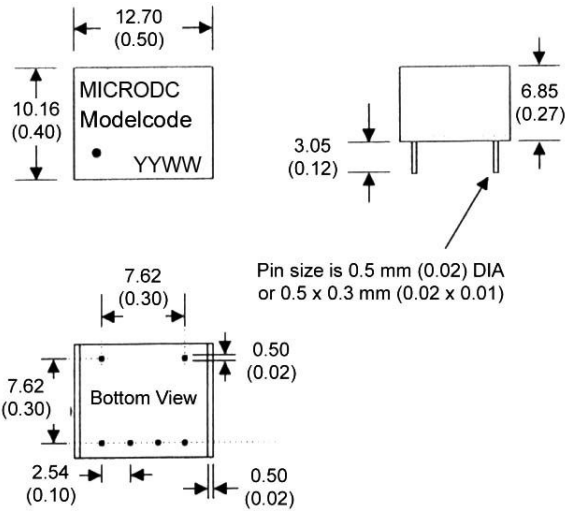
### Environmental Specifications

Operating temperature (ambient)	- 40 °C to + 85 °C
Storage temperature	- 55 °C to + 125 °C
Derating	See graph
Humidity	Up to 90 % non condensing
Cooling	Free air convection

### Physical Characteristics

Dimensions DIP8	12.7 X 10.16 x 6.85 mm
	0.5 x 0.4 x 0.24 inches
Weight	1.8 g
Case material	Non conductive black plastic

### Dimensions



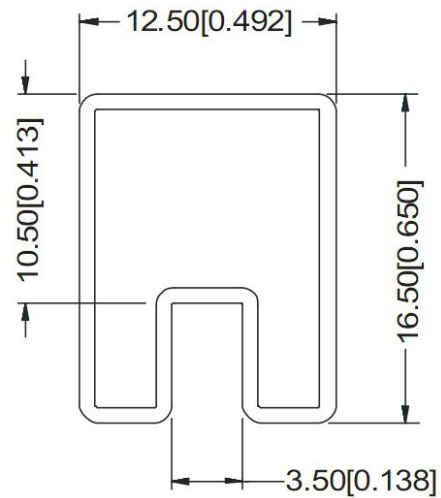
Note:

Unit:mm[inch]

Pin section tolerances:  $\pm 0.10\text{mm} [\pm 0.004\text{inch}]$

General tolerances:  $\pm 0.25\text{mm} [\pm 0.010\text{inch}]$

### TUBE OUTLINE DIMENSIONS



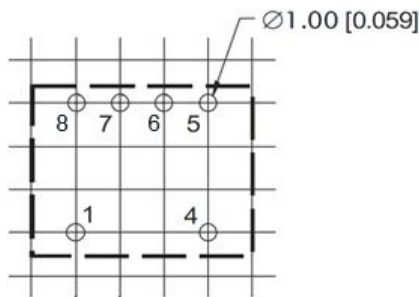
Unit :mm[inch]

General tolerances:  $\pm 0.50\text{mm} [\pm 0.020\text{inch}]$

L=530mm[20.866inch] Devices per tube: 40pcs

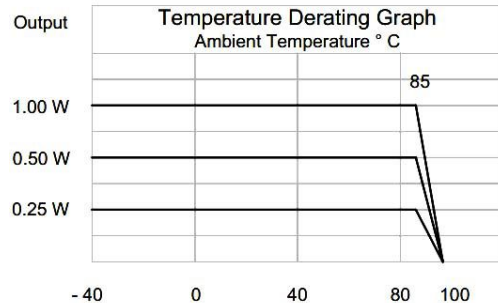
L=220mm[8.661inch] Devices per tube: 16pcs

### RECOMMENDED FOOTPRINT



Note: grid 2.54\*2.54mm

### MECHANICAL DIMENSIONS



### PIN CONNECTIONS

PIN	DUAL
1	-Vin
4	+Vin
5	+Vout
6	Omitted
7	Common
8	-Vout

#### RoHS COMPLIANT INFORMATION

This series is compatible with RoHS soldering systems with a peak wave solder temperature of 300 ° C for 10 seconds.

The pin termination finish on the SIP package type is Tin Plate, Hot Dipped over Matte Tin with Nickel Preplate. The DIP types are Matte Tin over Nickel Preplate. Both types in this series are backward compatible with Sn/Pb soldering systems.

#### REACH COMPLIANT INFORMATION

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