

M7009 SERIES

**MINIATURE, HIGH DENSITY,
SINGLE OUTPUT,
DC/DC CONVERTERS
(UP TO 75W)**



APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Extremely Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- TTL logic enable
- Remote Sense (optional)
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to $+85^{\circ}\text{C}$ (baseplate)

Storage -55°C to $+105^{\circ}\text{C}$

RELIABILITY

150,000 hours, calculated per
MIL-STD-217F at $+85^{\circ}\text{C}$ baseplate,
ground fixed.

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 48 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: 75%, Typical

EMI/RFI:

Design to meets or exceeds MIL-STD-461C

CE03, CE07, CS01, CS02, CS06, RE02, RS02, RS03.

Isolation:

200V between Input and Output

100V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

Less than $\pm 1\%$ (no load to full load, -55°C to $+85^{\circ}\text{C}$)

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting:

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on output.

Over temperature protection:

Shutdown with auto-recovery

Isolation:

100V between Output and Input

100V between Output and Case

SELECTION GUIDE

Model No.	Input	OUTPUT
M7009-1	18-36V	5V/10A
M7009-2	18-36V	12V/6A
M7009-3	18-36V	15V/5A
M7009S-3-2	18-36V	15V/2A
M7009-4	18-36V	24V/3A
M7009-5	18-36V	28V/2.5A
M7009-6	18-36V	9V/5A
M7009-14	18-36V	24V/2A
M7009-15	18-36V	5V/6.5A
M7009-16	18-36V	-19V/1A
M7009-17	18-36V	28V/0.5A
M7009-18	18-36V	8V/8A
M7009-19	18-36V	12V/3A
M7009-20	18-36V	15V/2.5A
M7009-21	18-36V	5V/4A
M7009-22	18-36V	5V/10A
M7009-23	18-36V	5V/10A
M7009-24	18-36V	15V/5A
M7009-33	18-36V	14V/4A
M7009-34	18-36V	12V/5A
M7009-35	20-36V	9V / 8A
M7009-36	18-36V	15.6V / 5A
M7009-37	18-50V	5V / 10A
M7009-39	18-36V	19V / 3.7A
M7009-SP1	16-33V	5V/8A
M7009-SP2	18-36V	4.6V/10A
M7009-SP3	18-36V	33.75V/0.6A
M7009-SP4	13-50V	5V/10A
M7009-SP5	18-36V	28V/10A
M7009-SP6	18-36V	56V/1.25A
M7009-SP7	18-36V	12V/1.8A
M7009-SP8	18-36V	8.5V/5A
M7009-SP9	18-36V	18.5V/3.6A
M7009-SP10	18-36V	50V/1A
M7009-SP11	18-36V	26V/2.5A
M7009-SP12	18-36V	19V/2.5A

Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT

PIN No.	PIN Function
1, 9, 10, 11	VOUT
4, 5, 12, 13	VOUT RTN
7, 15	VIN
6, 14	VIN RTN
8	INHIBIT
2	+ SENSE
3	- SENSE

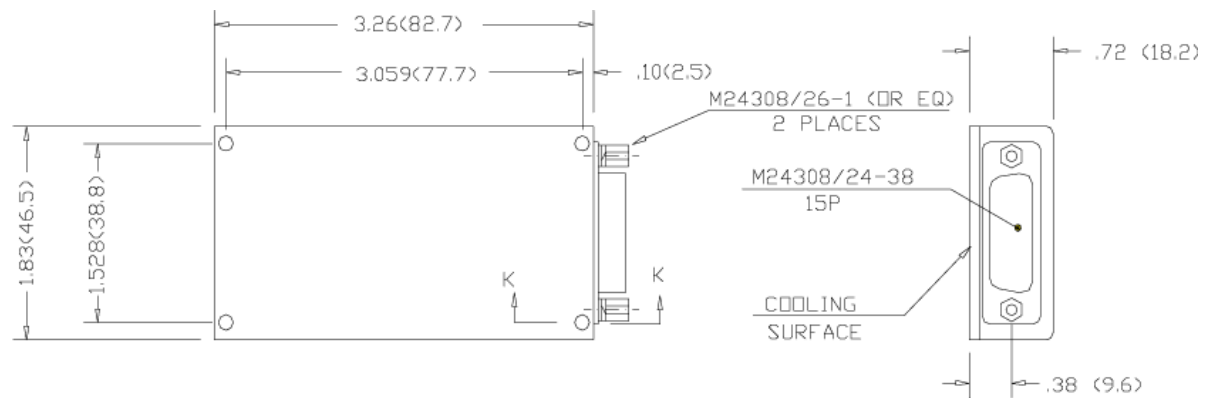
Note:

When remote sense is required:

Pin No. 2: + Sense

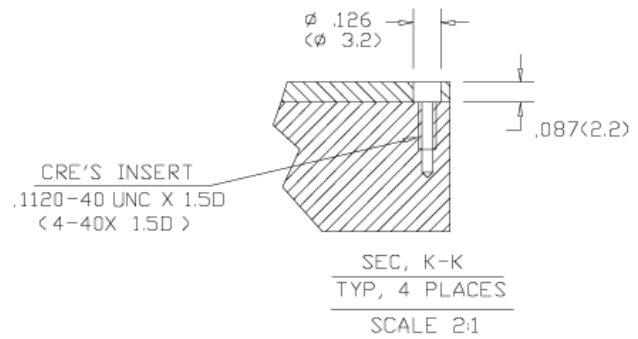
Pin No. 3: - Sense

OUTLINE DRAWING



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ±0.01 IN
.XXX ±0.005 IN
3. Weight: 4.76 Oz (135 gr.)



* Specifications are subject to change without prior notice by the manufacturer