

# M7018 SERIES

MINIATURE, HIGH DENSITY  
SINGLE OUTPUT  
DC/DC CONVERTERS  
UP TO 150W



## APPLICATIONS

Military, Ruggedized, Telecom, Industrial

## SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 22 W/IN<sup>3</sup>
- Input / Output isolation
- Remote sense
- Parallel connection of modules
- Redundancy connection
- Fixed switching frequency (250 KHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Output voltage adjustment with external resistor
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

## ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

## RELIABILITY

150,000 hours, calculated per

MIL-STD-217F at +85°C baseplate,  
ground fixed.

## ELECTRICAL SPECIFICATIONS

### DC INPUT

DC Input range: 18 to 48 VDC (Option A)  
33 to 78 VDC (Option B)

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: 76 ÷ 82%

EMI/RFI:

Design to meet or exceed MIL-STD-461C

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

Isolation:

200V between Input and Output

200V between Input and Case

### DC OUTPUT (floating)

Line/Load regulation:

Less than 1% (no load to full load, -55°C to +90°C)

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

Current limiting (HickUp):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and  
a passive tranzorb on output.

Over temperature protection:

Shutdown at baseplate temperature of +105°C (±5°C)

Automatic recovery at baseplate temperature

lower than +95°C (±5°C)

Isolation:

200V between Output and Input

100V between Output and Case

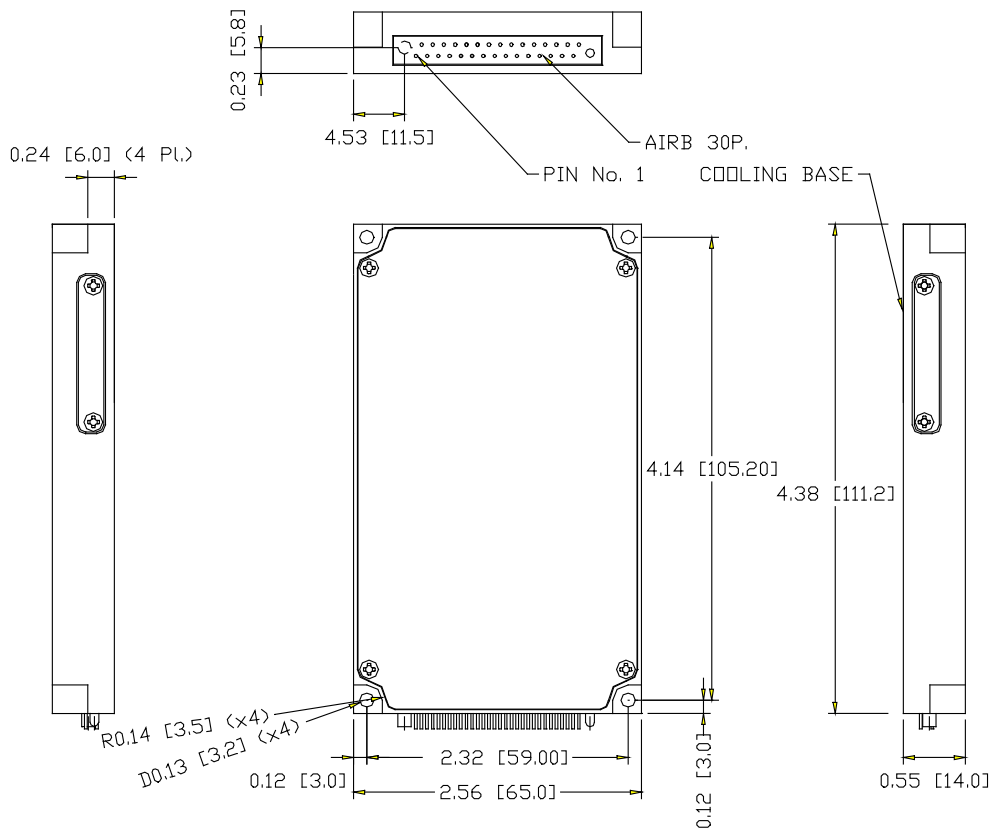
## PIN ASSIGNMENT

PIN No.	PIN Function
1	+ VIN
2	+ VIN
3	- VIN
4	- VIN
5	PAR IN
6	PAR OUT
7	CURR. LIMIT CAL
8	SYNC OUT
9	+ OUT
10	+ OUT

PIN No.	PIN Function
11	+ OUT
12	- OUT
13	- OUT
14	- OUT
15	+ SENSE
16	+ VIN
17	+ VIN
18	- VIN
19	- VIN
20	ENABLE

PIN No.	PIN Function
21	OUT V/CAL
22	OUT SIGNAL RTN
23	SYNC IN
24	+ OUT
25	+ OUT
26	+ OUT
27	- OUT
28	- OUT
29	- OUT
30	- SENSE

## OUTLINE DRAWING



### Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:  
.XX ±.02 IN  
.XXX ±.01 IN
3. Weight: 7.45 Oz (213gr)
4. Add suffix SL to specify connector with guide set per M55302/57-A30X

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