

# M8053 SERIES

MINIATURE, HIGH DENSITY  
DUAL OUTPUT  
DC/DC CONVERTERS  
(UP TO 125W)

## APPLICATIONS

Military, Ruggedized, Telecom, Industrial

## SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250KHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- 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 70 VDC

Input transient protection:

All models meet or exceed (no damage)

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

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

Efficiency: up to 80%

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:

Passive transzorb on outputs.

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

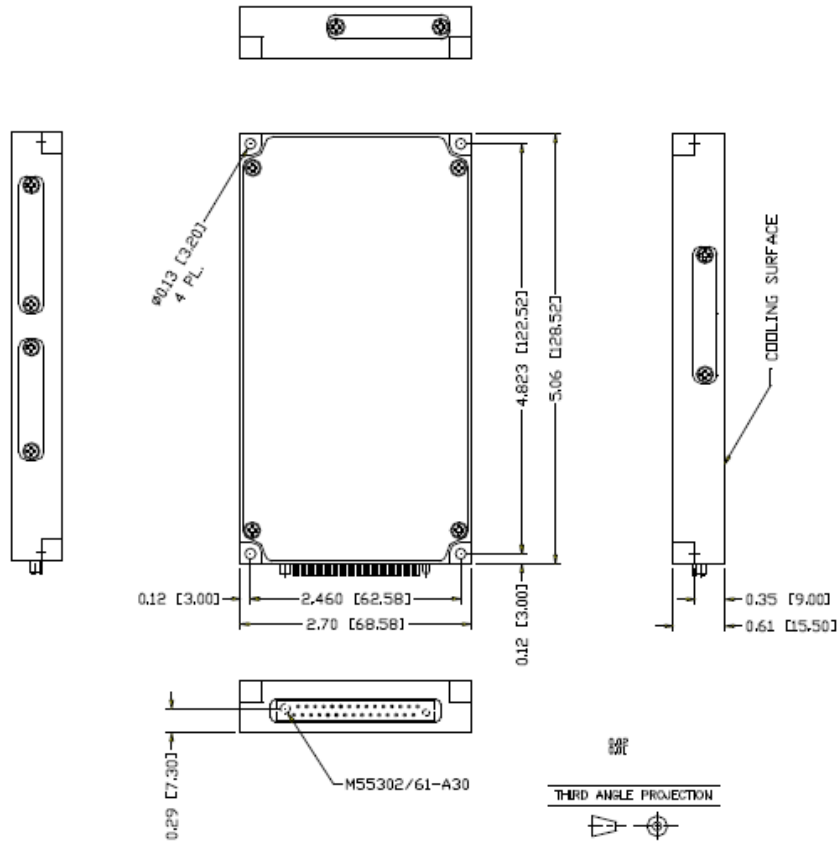
100V between Output and Case

## PIN ASSIGNMENT

Pin No.	Pin Function	Pin No.	Pin Function	Pin No.	Pin Function
1	+OUT 1	11	SIGNAL RTN*	21	+OUT 2
2	+OUT 1	12	- VIN	22	- OUT 2
3	- OUT 1	13	- VIN	23	- OUT 2
4	- OUT 1	14	+VIN	24	N.C.
5	+OUT 2	15	+VIN	25	INHIBIT
6	+OUT 2	16	+OUT 1	26	- VIN
7	- OUT 2	17	+OUT 1	27	- VIN
8	- OUT 2	18	- OUT 1	28	+VIN
9	N.C.	19	- OUT 1	29	+VIN
10	N.C.	20	+OUT 2	30	SYN

\* Signal RTN for the INHIBIT and the SYN signals.

## OUTLINE DRAWING



### Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:  
.XX ±.02 IN  
.XXX ±.01 IN
3. Weight: 9.55 Oz (270.5gr)
4. 30 pin connector M55302/61-A30 with fixed threaded jackset
5. Add suffix SL to specify connector with guideset per M55302/57-A30X

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