

M8657 SERIES

THE MOST COMPLETE,
MINIATURE, HIGH DENSITY,
FIVE OUTPUTS
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 (250 KHz)
- 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 +90°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 (Hiccup):

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

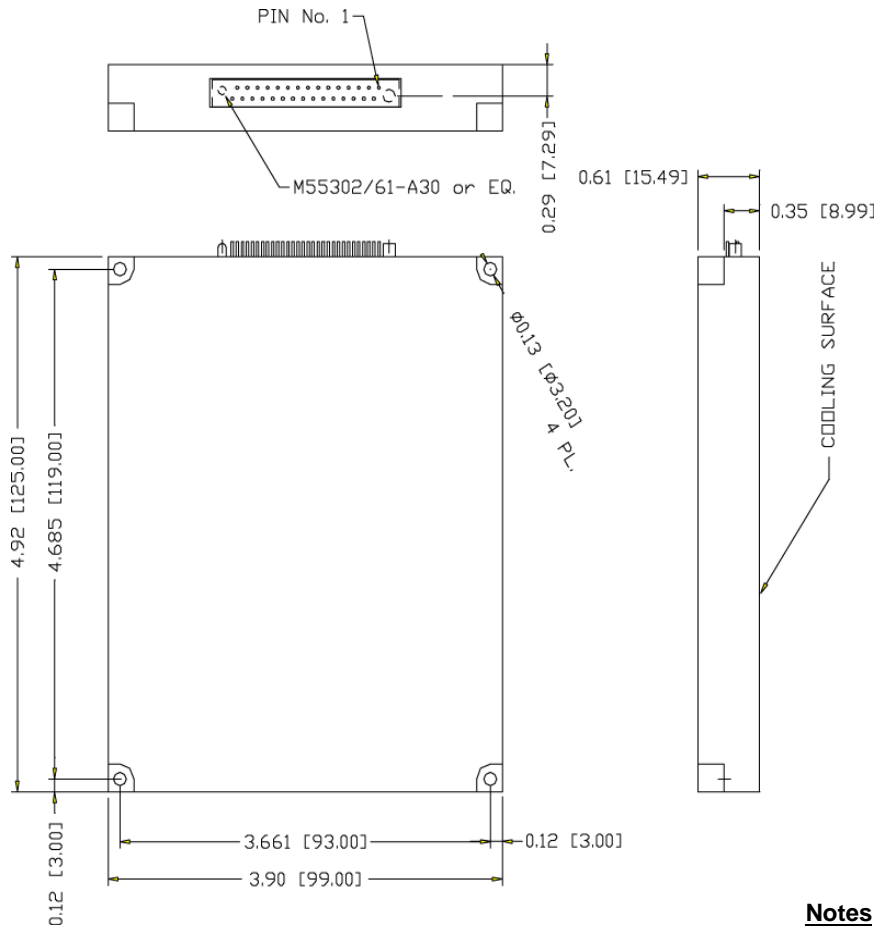
Pin No.	Pin Function
1	+ OUT 1
2	- OUT 1
3	+ OUT 5
4	- OUT 5
5	- OUT 4
6	+ OUT 2
7	- OUT 2
8	+ OUT 3
9	- OUT 3
10	N.C.

Pin No.	Pin Function
11	SYN
12	- VIN
13	- VIN
14	+VIN
15	+VIN
16	+ OUT 1
17	- OUT 1
18	+ OUT 5
19	- OUT 5
20	+ OUT 4

Pin No.	Pin Function
21	+ OUT 2
22	- OUT 2
23	+ OUT 3
24	- OUT 3
25	INHIBIT
26	SIGNAL RTN*
27	- VIN
28	- VIN
29	+VIN
30	+VIN

* 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: 14 Oz (404gr)
4. Add suffix SD to specify with gideset per M55302/57-A30X

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