

## M8657 SERIES

*DC/DC POWER SUPPLY*



### PRODUCT HIGHLIGHTS

- MINIATURE
- HIGH DENSITY
- FIVE OUTPUTS
- DC/DC CONVERTER
- 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 Conditions

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:

Designed to meet\* MIL-STD-461F CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103

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 +85°C) Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting (Hiccup):

Continuous protection for unlimited time.

Over voltage protection:

Passive transorb 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

\* Compliance achieved with 5µH LISN, shielded harness and static resistive load.

**PIN ASSIGNMENT - Standard Version**

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.

**PIN ASSIGNMENT – Optional**

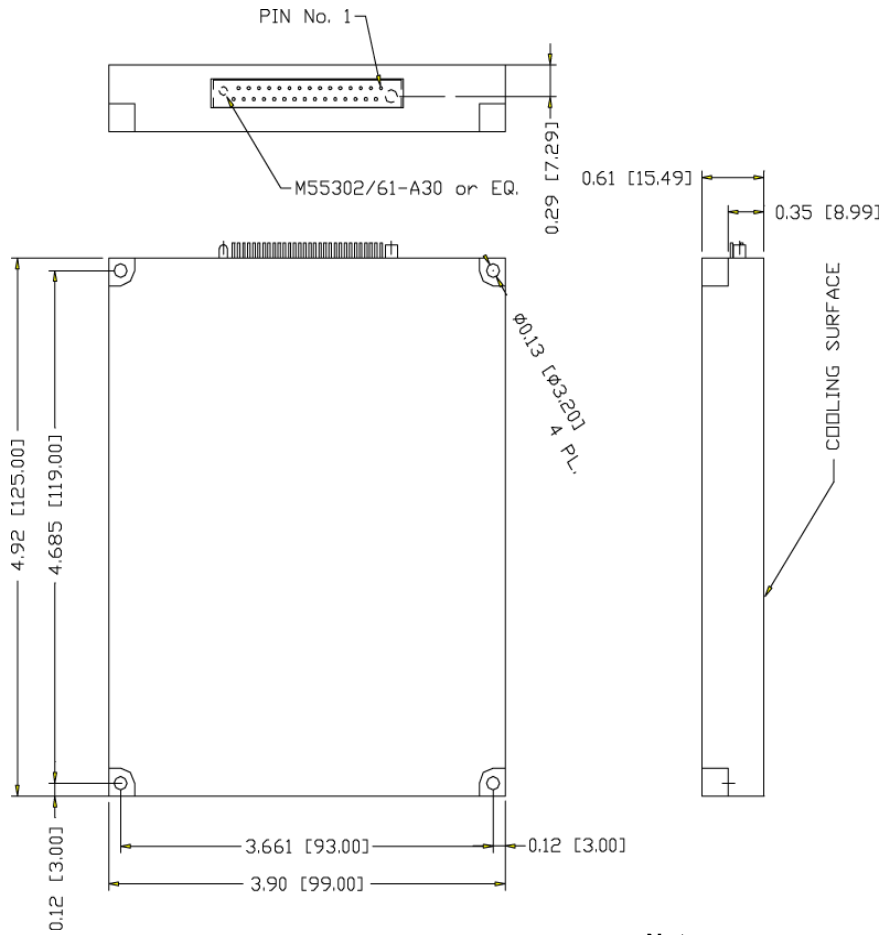
Pin No.	Pin Function
1	+ OUT 1
2	+ OUT 1
3	- OUT 1
4	- OUT 1
5	- OUT 5
6	N.C
7	+OUT 4
8	- OUT 3
9	+ OUT 2
10	- OUT 2

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

Pin No.	Pin Function
21	- OUT 1
22	+ OUT 3
23	+ OUT 2
24	- OUT 2
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**

- Dimensions are in Inches [mm]
- Tolerance is:
  - .XX  $\pm$ .02 IN
  - .XXX  $\pm$ .01 IN
- Weight: 14 oz (404g)
- Add suffix SD to specify with guideset per M55302/57-A30X

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