

M8453 SERIES

MINIATURE, HIGH DENSITY
QUAD OUTPUT
DC/DC CONVERTERS
(UP TO 150W)

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

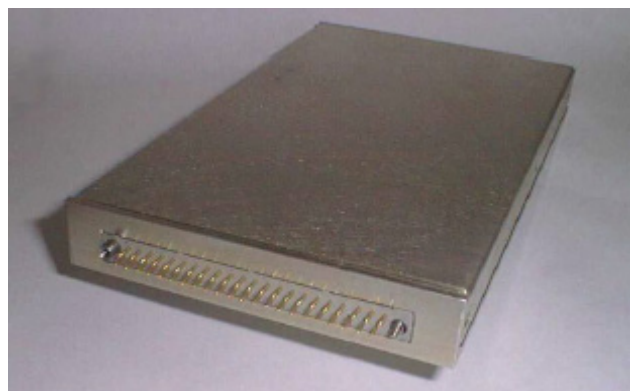
Temperature:

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 48 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 87%

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 +85°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

SELECTION GUIDE

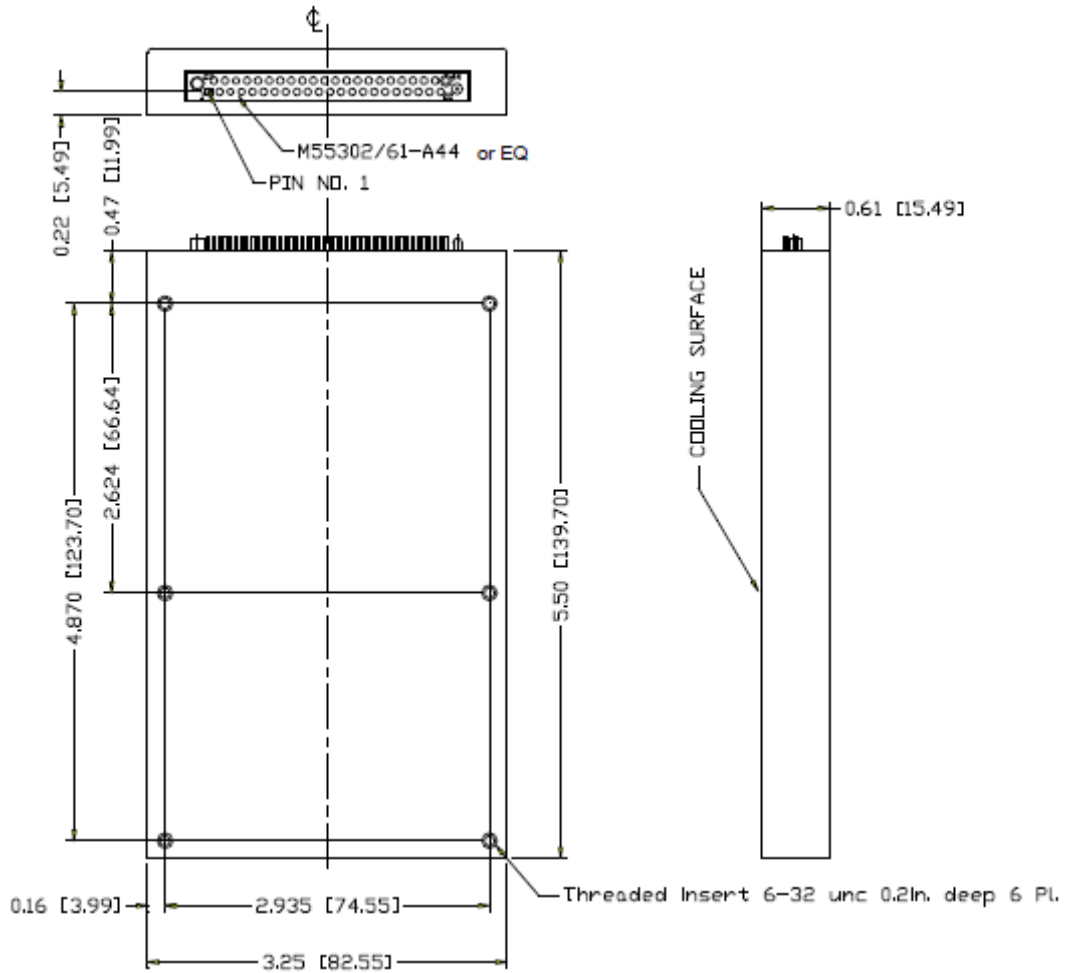
Model	Input	Output#1	Output#2	Output #3	Output #4
M8453-1	18-48V	3.3V/18A	5.1V/10A	12V/1.25A	-12V/1.25A
M8453-2	18-48V	5.1V/18A	3.3V/10A	12V/1A	-12V/1A
M8453-3	18-48V	5.1V/11.5A	5V/12A	15V/1A	-15V/1A
M8453-4	18-48V	5.1V/18A	3.3V/10A	12V/1A	-12V/1A
M8453-5	18-48V	3.3V/8A	5V/8A	8V/1.2A	-15V/0.6A
M8453-8	18-48V	5V/14A	2.5V/10A	18V/1.25A	12V/1.25A
M8453-9	18-48V	3.3V/21A	5V/6A	12V/0.5A	-5V/1.25A
M8453-10	18-48V	3.3V/16.5A	5V/5A	8V/1A	3.3V/1.25A

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

PIN ASSIGNMENT

Pin Function	Pin No.
+ VIN	11, 12, 32, 33
VIN RTN	13, 14, 34, 35
SIGNAL RTN	30
SYN INPUT	31
INHIBIT	9
+OUT 1	18, 19, 20, 40, 41, 42
- OUT 1	15, 16, 17, 37, 38, 39
OUT 1 +SENSE	43
OUT 1 - SENSE	36
+OUT 2	6, 7, 27, 28, 29
- OUT 2	3, 4, 24, 25, 26
OUT 2 +SENSE	8
OUT 2 - SENSE	5
+OUT 3	44
- OUT 3	21
+OUT 4	1
- OUT 4	2
CHASSIS	10

OUTLINE DRAWING



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ±.02 IN
.XXX ±.01 IN
3. Weight: approx. 10.5 Oz (300gr)
4. Add suffix SL to specify connector with gideset per M55302/57-A44X or EQ.

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