

## M8453 SERIES

DC/DC POWER SUPPLY



### PRODUCT HIGHLIGHTS

- MINIATURE
- HIGH DENSITY
- QUAD OUTPUT
- DC/DC CONVERTER
- UP TO 150W



**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 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 –55C to +85°C (baseplate)

Storage –55C to +125°C

**RELIABILITY**

150,000 hours, calculated per

MIL-STD-217F at +85°C baseplate,

Ground Fixed.

**Electrical Specifications**

**DC INPUT**

Input range: 18 to 48 V<sub>DC</sub> 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: up to

87%

EMC: Designed to meet

MIL-STD-461F\*

CE101, CE102, CS101, CS114, CS115, CS116,

RE101, RE102, RS101, RS103

Isolation:

Input to Output: 200V

Input to Chassis: 200V

**DC OUTPUT (floating)**

Line/Load Regulation:

Less than 1% (no load to full load, –55°C to +85°C)

Ripple and Noise: 50mV<sub>p-p</sub>, typical (max. 1%)

Current Limiting:

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:

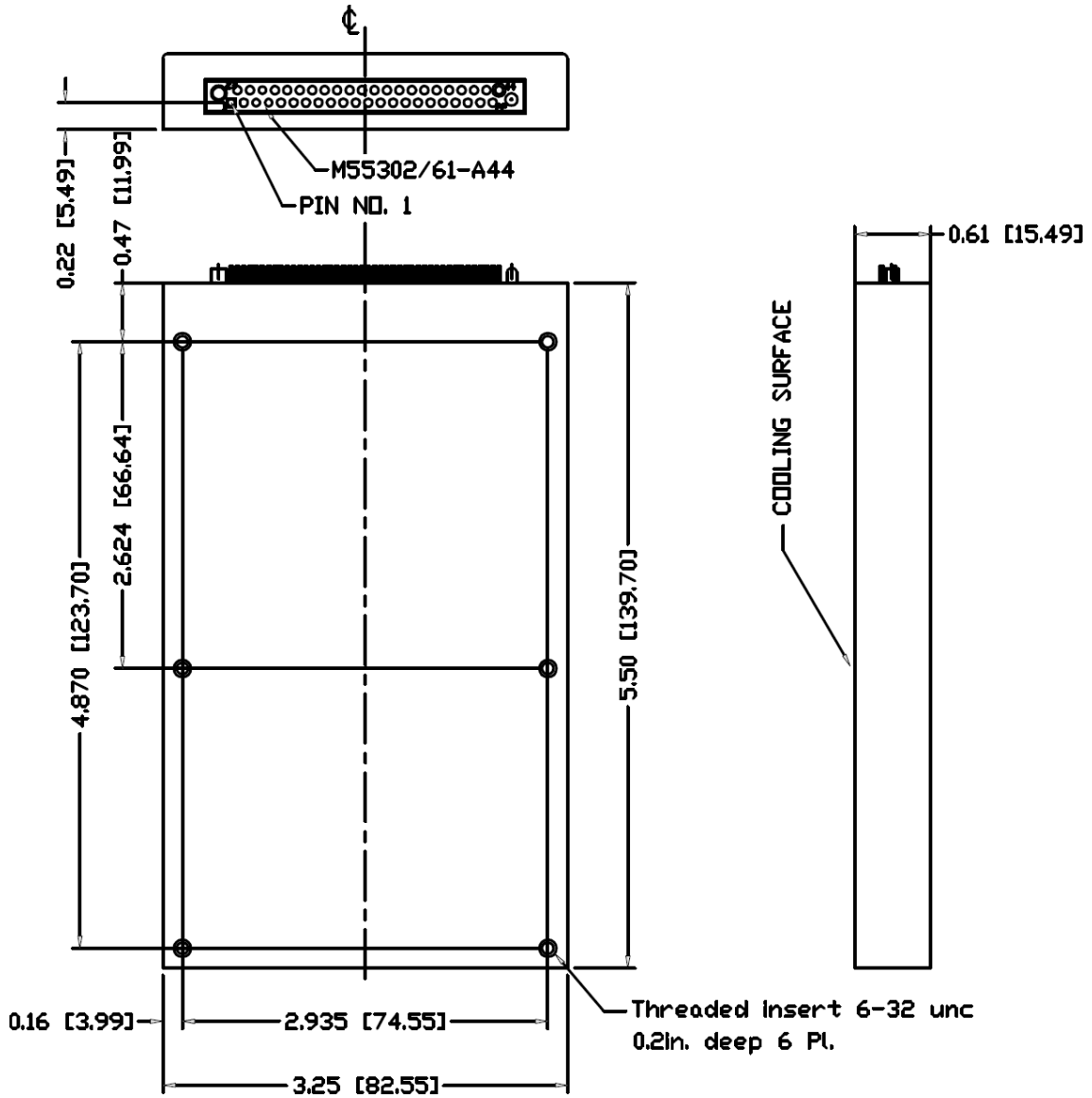
Output to Chassis: 100V

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

**PIN ASSIGNMENT**

<b>Function</b>	<b>Pin No.</b>
VIN (+)	11, 12, 32, 33
VIN RTN (-)	13, 14, 34, 35
SIGNAL RTN	30
SYNC	31
INHIBIT	9
OUT 1 (+)	18, 19, 20, 40, 41, 42
OUT 1 RTN (-)	15, 16, 17, 37, 38, 39
OUT 1 SENSE (+)	43
OUT 1 SENSE RTN (-)	36
OUT 2 (+)	6, 7, 27, 28, 29
OUT 2 RTN (-)	3, 4, 24, 25, 26
OUT 2 SENSE (+)	8
OUT 2 SENSE RTN (-)	5
OUT 3 (+)	44
OUT 3 RTN (-)	21
OUT 4 (+)	1
OUT 4 RTN (-)	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 (300 gr)
4. 3D model available

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

*Standard Configurations*

Part number	Input	Output #1		Output #2		Output #3		Output #4	
	Voltage range	Voltage	Current	Voltage	Current	Voltage	Current	Voltage	Current
M8453-100	18 to 48 VDC	3.3VDC	20A	5VDC	10A	12VDC	1.25A	12VDC	1.25A
M8453-101	18 to 48 VDC	3.3VDC	10A	5VDC	8A	8VDC	1.25A	15VDC	1.25A
M8453-102	18 to 48 VDC	5VDC	16.4A	3.3VDC	7.1A	12VDC	1A	VDC	A