



MP2103

HIGH DENSITY 4 OUTPUT DC/DC CONVERTER



- MIL-STD-704 Compliant
- Operating Temperature Range -46°C to +85°C
- Output Over-Voltage And Over-Current Protection
- NAVMAT Component Derating
- Four Outputs in Dense Package
- MIL-STD-461 EMI Filtering
- >150,000 HRS MTBF

DESCRIPTION:

The MP2103 module was designed for a military man-pack application, but can be used in other rugged military applications. This module contains four separate outputs in a very dense package. The module meets the environmental requirements of MIL-STD-810. This DC/DC converter was designed using NAVMAT guidelines for component derating.

GENERAL SPECIFICATIONS				
INPUT VOLTAGE	+9-15VDC			
FREQUENCY RANGE	N/A			
OUTPUT VOLTAGE	+5VDC	+5VDC	+15VDC	+28VDC
OUTPUT CURRENT	.12 AMPS	.11 AMPS	.10 AMPS	1.5 AMPS
PHYSICAL SIZE	4.0 X 1.85 X 1.00			
WEIGHT	<1LB			
MTBF	>150,000 HRS.			

PHYSICAL CHARACTERISTICS	
MAXIMUM CASE SIZE	4.0 X 1.85 X 1.00
COOLING METHOD	CONDUCTION
ENCAPSULATION	SILICONE POTTING
ENCLOSURE FINISH	YELLOW CHROMATE
BASEPLATE FINISH	YELLOW CHROMATE
INPUT/OUTPUT TERMINATION	CUSTOM RIBBON CABLE
MOUNTING	4X 4-40 THRU HOLES



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ELECTRICAL SPECIFICATIONS				
LINE REGULATION (LO LINE TO HI LINE)	.2%	.2%	3%	3%
LOAD REGULATION (1/2-FL W/SENSE)	.2%	.2%	1%	N/A
PARA (RIPPLE NOISE) DC-20MHZ	50mVp-p	50mVp-p	100mVp-p	100mVp-p
OVERCURRENT SETPOINT	150% OF RATED CURRENT			
OVERVOLTAGE SET	AUTO-RECOVERY +5VDC OUTPUTS			
EFFICIENCY (MIN)	70%			
ISOLATION	N/A			
EMI FILTERING	MIL-STD-461			
OUTPUT POWER	10 WATTS			

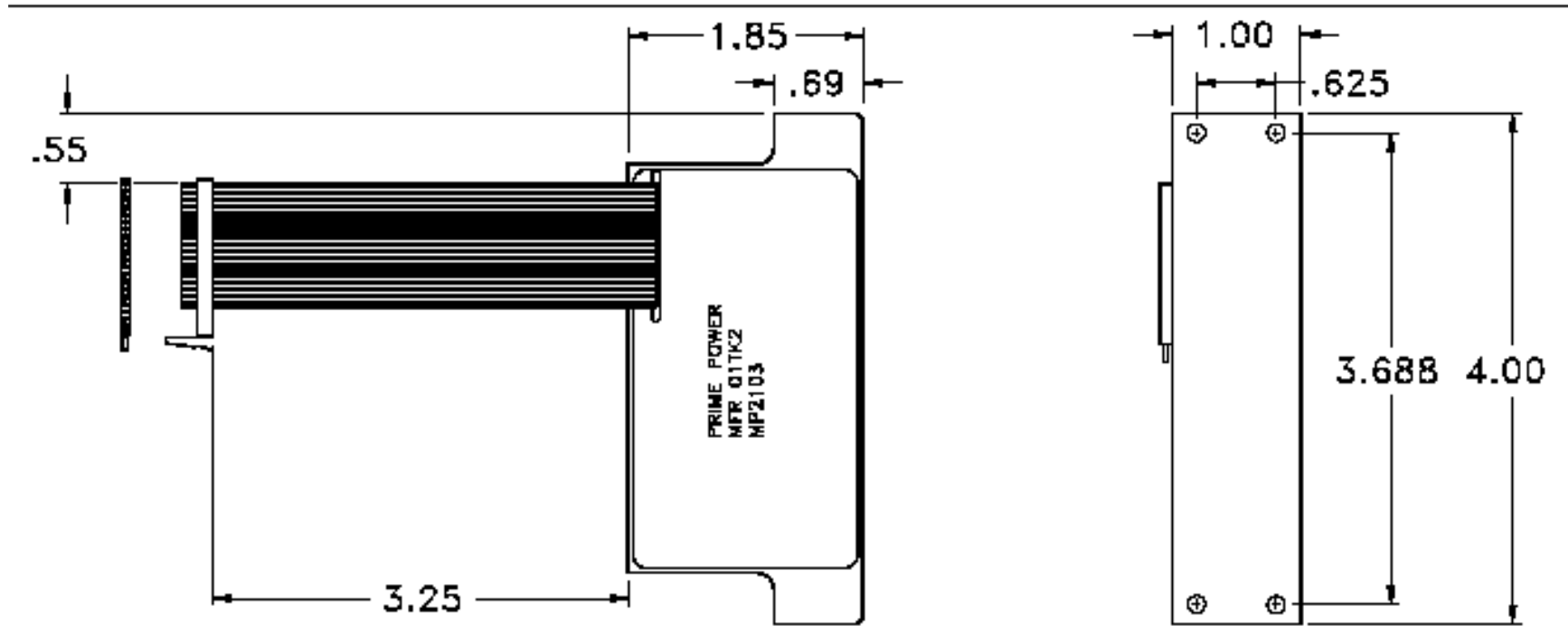
ENVIRONMENTAL SPECIFICATIONS		
ALTITUDE	MIL-STD-810F	METHOD 500.1, PROCEDURE 1
HIGH TEMPERATURE	MIL-STD-810F	METHOD 501.4 PROCEDURE 1 & 2
LOW TEMPERATURE	MIL-STD-810F	METHOD 502.4 PROCEDURE 1 & 2
HUMIDITY	MIL-STD-202G	METHOD 103B
FUNGUS	MIL-STD-810F	METHOD 508, CONDITION A
SALT FOG	MIL-STD-202G	METHOD 101 E, TEST CONDITION A
SAND AND DUST	MIL-STD-810F	METHOD 501.4, PROCEDURE 1 & 2
EXPLOSIVE ATMOSPHERE	MIL-STD-810F	METHOD 511, CONDITION A
ACCELERATION	MIL-STD-810F	METHOD 513.5, PROCEDURE 1 & 2
VIBRATION	MIL-STD-810F	METHOD 514.2
SHOCK	MIL-STD-883	METHOD 2002.4

TEMPERATURE SPECIFICATIONS	
OPERATING TEMPERATURE	-46°C TO +85°C
STORAGE TEMPERATURE	-55°C TO +125°C
TEMPERATURE COEFFICIENT	.02%/°C



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