

M7878 SERIES

DC/DC POWER SUPPLY



DESCRIPTION

The M7878 PCB mounted military power supply is a rugged dual output DC to DC converter which accepts an 18 - 36VDC input voltage range and provides DC outputs from 3.3 to 28VDC at up to 6W. Custom outputs available upon request and the unit is Designed to meet military standards, MIL-STD-704, MIL-STD-810, MIL-STD-461.

FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Input over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

HOW TO ORDER

| Part Number | Input | Output 1 | | Output 2 | |
|---------------|----------------|----------|---------|----------|---------|
| | Volatage Range | Voltage | Current | Voltage | Current |
| CF-02EM7878-1 | 18 to 50VDC | 3.3VDC | .25A | 3.3VDC | 0.25A |
| CF-02EM7878-2 | 18 to 50VDC | 5VDC | .25A | 5VDC | 0.25A |
| CF-02EM7878-3 | 18 to 50VDC | 12VDC | .15A | 12VDC | 0.15A |

ELECTRICAL SPECIFICATIONS:

| DC INPUT | | |
|---|--|---|
| DC Input range: 18 to 36 VDC (can operate down to 9V during input transient) | Optional Extended Input: 16 to 48VDC—please consult factory. | Over-voltage shutdown with auto-recovery |
| EMI/RFI: Designed to meet MIL-STD-461F CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103 | Isolation: 100V between Input and Outputs 100V between Input and Case | Efficiency: 62%, Typical (up to 85%) |

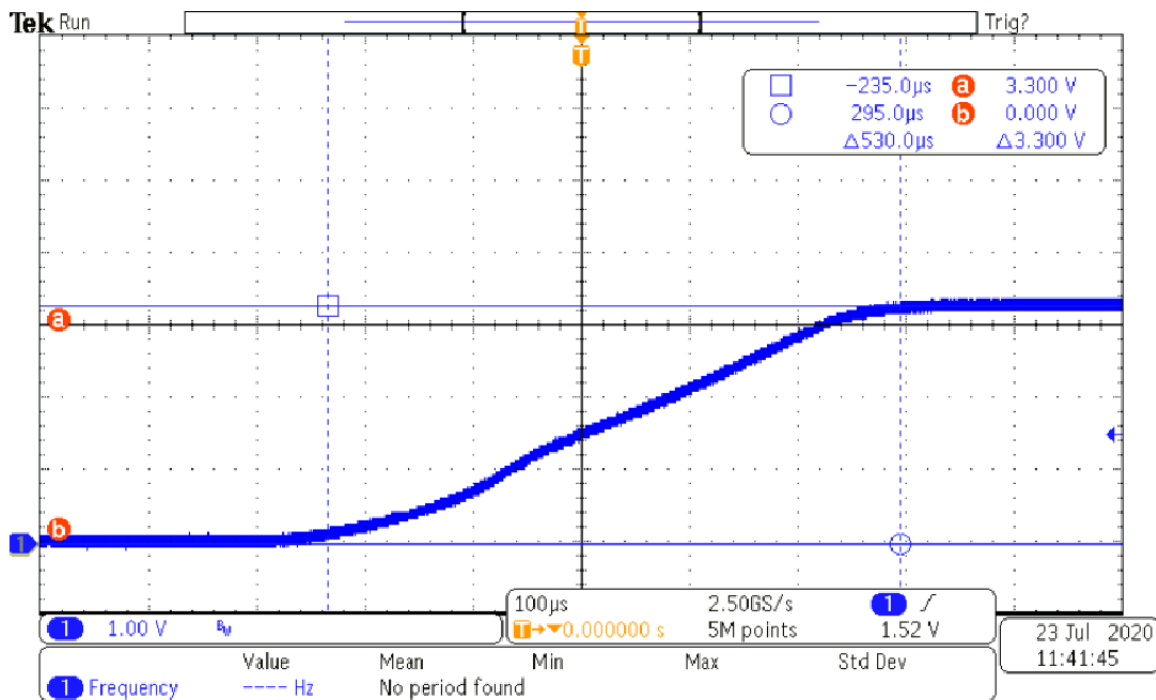
| DC OUTPUT (floating) | | |
|---|---|--|
| Line/Load regulation: Less than 2% (no load to full load, -55°C to +85°C) | Ripple and Noise: 30mVp-p, typical (max. 1%) | Current limiting (Fold-back): Continuous protection for unlimited time |
| Over voltage protection: Passive transorb on output. | Isolation: 100V between Outputs and Input 100V between Output and Case | |

PRODUCT SPECIFICATIONS:

| ENVIRONMENTAL CONDITIONS | |
|-------------------------------|---|
| Meets or exceeds MIL-STD-810D | Temperature: Operating -55°C to $+85^{\circ}\text{C}$ (baseplate) Storage -55°C to $+125^{\circ}\text{C}$ |

TEST RESULTS:

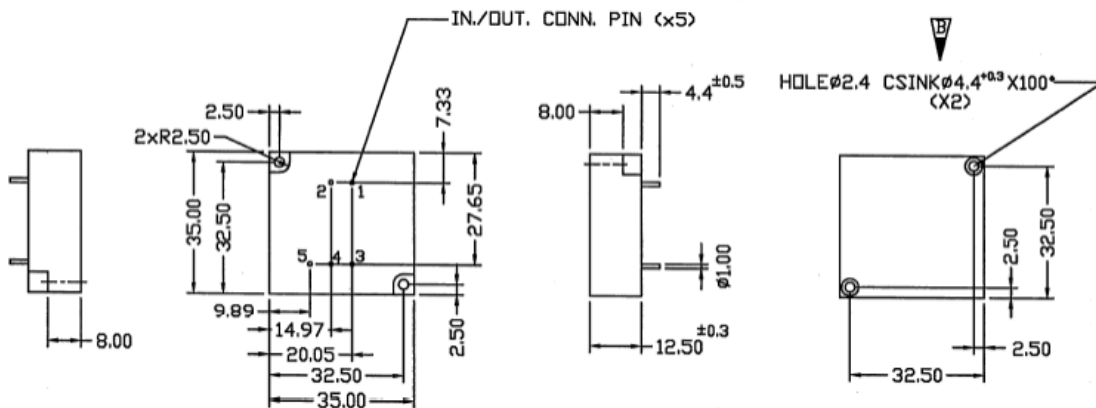
Turn On Time from power on



PIN ASSIGNMENT:

| PIN No. | PIN Function |
|---------|--------------|
| 1 | + VIN |
| 2 | VIN RTN |
| 3 | + OUT 1 |
| 4 | OUT RTN |
| 5 | + OUT 2 |

OUTLINE DRAWING:



M7878 PINOUT

- 1 - +IN
- 2 - -IN
- 3 - +OUT
- 4 - RTN
- 5 - OUT

Notes:

1. Dimensions are in mm
2. Tolerance is:
 - .XX ±0.2MM
 - .XXX ±0.1MM
3. Weight: Approx. 0.88 Oz (25 gr.)

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PRELIMINARY

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