

## MTF50



- Wide Input Voltage Range 10 - 50 VDC
- Active Surge Protection
- Max Output Power 50W
- Wide Temperature Range -55°C to 100°C
- EMI to MIL-STD-461E
- Input Immunity to MIL-STD-1275A/B/C
- Environment to MIL-STD-810F

## Specification

## Input

- |                     |  |
|---------------------|--|
| Input Voltage Range | • 15.5-40 VDC  |
| Input Transient     | • 10-50 VDC for 10 s<br>600 VDC for 10 $\mu$ s 50 $\Omega$ source resistance per MIL-STD-704A, 100V for 50ms 0.5 $\Omega$ source resistance per MIL-STD-1275B, $\pm$ 250V for 100 $\mu$ s as per MIL-STD-1275B |

## Output

- |                |   |
|----------------|---|
| Output Voltage | • Clamped <50 VDC   |
| Output Power   | • 50 W maximum  |
| Inhibit        | • Off = TTL Low or short circuit<br>On = TTL High or open circuit |

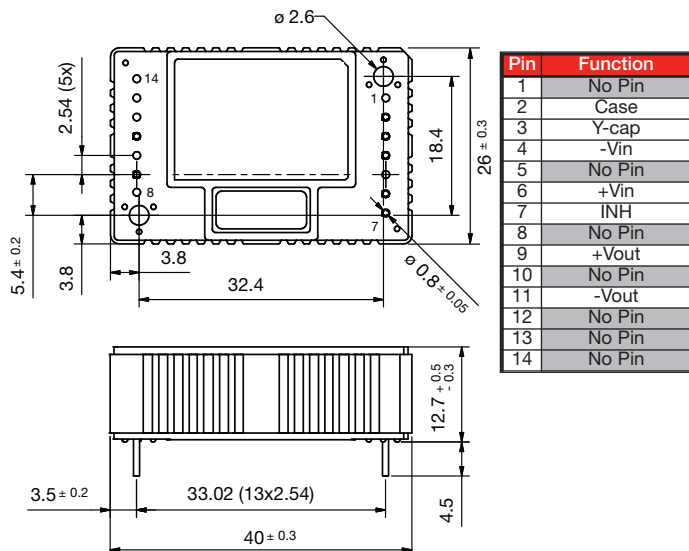
## General

- |                             |  |
|-----------------------------|--|
| Efficiency                  | • 97%  |
| Resistance                  | • 0.25 $\Omega$ input to output<br><0.1 $\Omega$ case to case pin at 10A |
| Power Dissipation Inhibited | • 0.1 W  |
| Inrush Current              | • 25 A at 28 Vin   |
| Fusing                      | • External fusing required   |
| Weight                      | • 25 g   |
| MTBF                        | • TBA  |

## Environmental

- |                       |   |
|-----------------------|---|
| Operating Temperature | • -40 °C to +85 °C ambient<br>-40 °C to +100 °C case<br>Extended Temperature Range:<br>-55 °C to +85 °C ambient<br>-55 °C to +100 °C case |
| Storage Temperature   | • -55 °C to +125 °C   |
| Operating Altitude    | • Tested to 70000 ft  |
| Operating Humidity    | • 88% relative humidity<br>240h MIL-STD-810D Method 507.2   |
| Shock                 | • 100 G MIL-STD-810D Method 516.3   |
| Vibration             | • 10 to 2000Hz MIL-STD-810D Method 514.3  |
| Bump                  | • 2000 Bumps in each axes<br>40 G MIL-STD-810D Method 516.3   |
| Salt Atmosphere       | • 48 hours MIL-STD-810E Method 509.1  |

## Mechanical Details



All dimensions in mm. Tolerance:  $\pm$ 0.5 .

## Models and Ratings

Output Voltage	Input Voltage	Efficiency	Model Number
50 VDC max	15.5-40 VDC	97%	MTF50

## Notes:

1. Add suffix '-LT' to the part number for extended temperature range version.
2. Add suffix '-ESS' to the part number for extended screening.

## EMC &amp; Safety

- |                          |  |
|--------------------------|--|
| Conducted Emissions      | • EN55022 Conducted Level B.<br>MIL-STD-461E:CE102 and<br>DEF-STAN 59-41:DCE01/DCE02 |
| Immunity                 | • MIL-STD-704E. MIL-STD 704A and<br>MIL-STD-1275A/B/C                                |
| Conducted Susceptibility | • MIL-STD-461E (CS101, CS114,<br>CS115 & CS116)                                      |

EMC standards are met when used in conjunction with the MTC series.