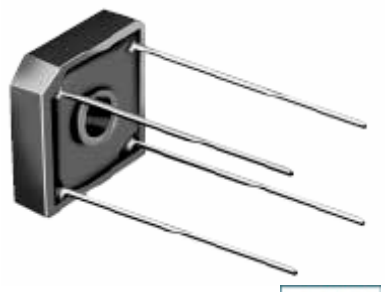
# 10A Single-Phase Bridge Rectifier



## Features

- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs (2.3kg) tension
- RoHS Compliant

## Mechanical Data

| | |
|---|---|
| **Case:** | Molded plastic body |
| **Epoxy:** | Meets UL 94V-0 flammability rating |
| **Terminals:** | Lead solderable per MIL-STD-202E method 208C |
| **Polarity:** | Marked on case |
| **Weight:** | 0.20 ounce, 5.62 gram |

## Maximum Ratings (*$T_{Ambient}$=25ºC unless noted*)

| Symbol | Description | | TB1005 | TB101 | TB102 | TB104 | TB106 | TB108 | TB1010 | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| $V_{RRM}$ | Maximum Repetitive Peak Reverse Voltage | | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| $V_{RMS}$ | Maximum RMS Voltage | | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| $V_{DC}$ | Maximum DC Blocking Voltage | | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| $I_{AV}$ | Maximum Average Forward Rectified Current | $T_C$=50° C (Note 1) | 10 | | | | | | | A |
| | | $T_C$ =100°C | 6 | | | | | | | |
| | | $T_A$=50°C (Note 2) | 6 | | | | | | | |
| $I_{FSM}$ | Peak Forward Surge Current | | 150 | | | | | | | A |
| $I^2t$ | Rating for Fusing (t<8.3ms) | | 93 | | | | | | | $A^2$sec |
| $V_{ISO}$ | Isolation Voltage from case to leads | | 2500 | | | | | | | V |
| $T_J$ | Operating Temperature Range | | -55 to +125 | | | | | | | ° C |
| $T_{STG}$ | Storage Temperature Range | | -55 to +150 | | | | | | | ° C |



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## Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

| Symbol | Description | | TB1005 | TB101 | TB102 | TB104 | TB106 | TB108 | TB1010 | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| $V_F$ | Maximum Instantaneous Forward Voltage Drop Per Leg at 5.0 A | | 1.1 | | | | | | | A |
| $I_R$ | Maximum DC Reverse Current at Rated DC Blocking Voltage | TA=25° C | 10 | | | | | | | uA |
| | | TA=125° C | 1 | | | | | | | mA |
| $R_{\theta-JC}$ | Maximum Thermal Resistance (Note 1) | | 6 | | | | | | | ° C/W |

Note: 1. Unit mounted on 8.7" X 8.7" X 0.24" thick (22 X 22 X 0.6cm) Al. Plate.
2. Unit mounted on P.C. B 0.375" (9.5mm) lead length with 0.47" X 0.47" (12 X 12mm) copper pads

## Typical Characteristics Curves

**Fig.1- Derating Curve for Output Rectified Current**

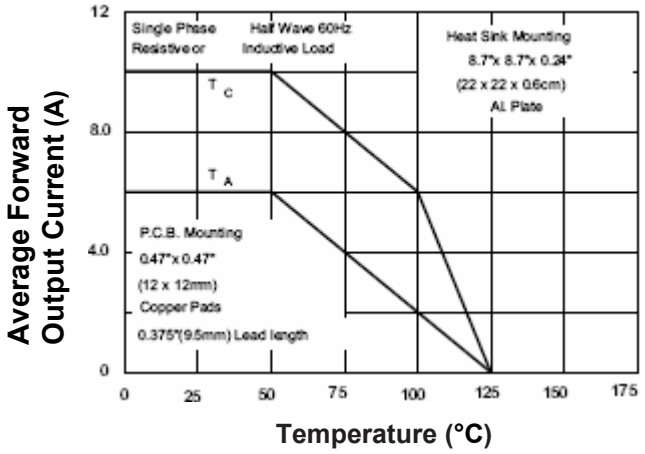



**Fig.2- Maximum Non-Repetitive Peak Forward Surge Current Per Element**

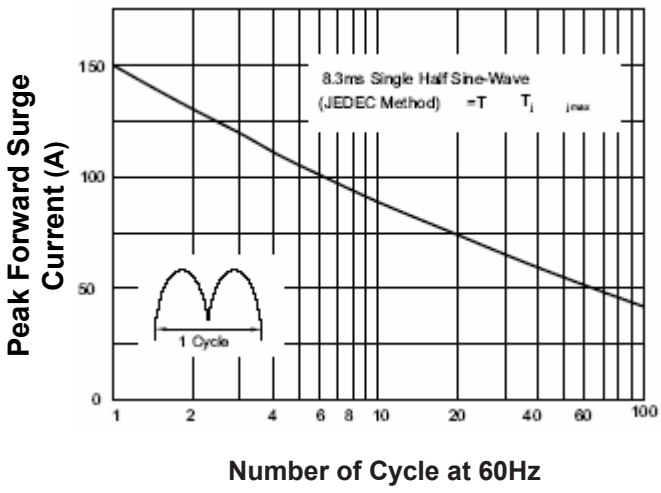


**Fig.3- Typical Forward Characteristics Per Bridge Element**

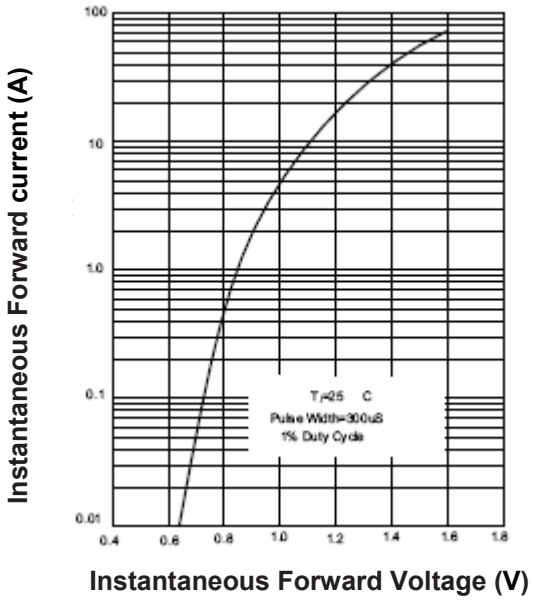
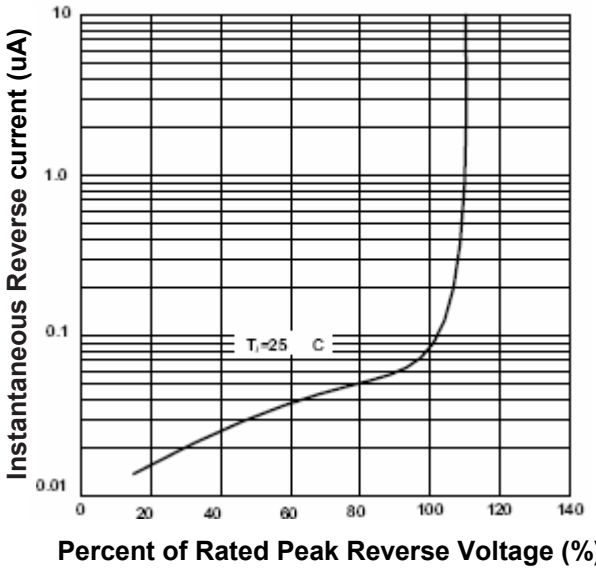
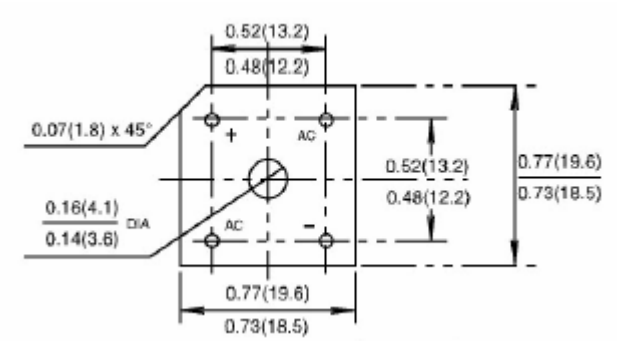


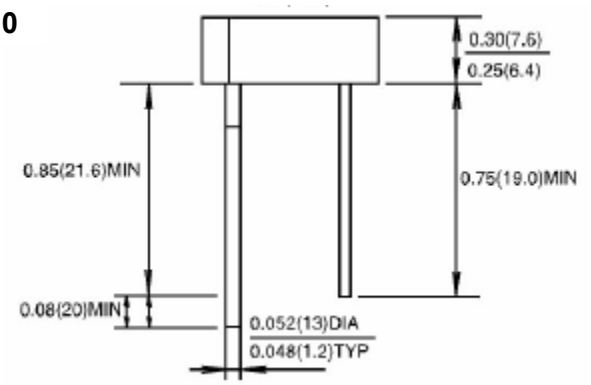

**Fig.4- Typical Reverse Characteristics Per Bridge Element**




## Dimensions in inch (mm)




**TB10**



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