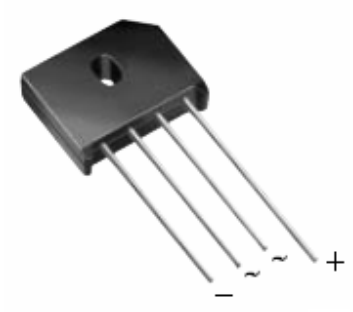
# 8A Bridge Rectifiers




## Features

- Low forward voltage drop
- High current capability, high reliability
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
  260° C/10 seconds, /.375" (9.5mm) lead length at 5 lbs.(2.3kg) tension
- This series is UL recognized under component index, File number E194718
- RoHS compliant

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## Mechanical Data

| | |
|---|---|
| **Case:** | Molded plastic |
| **Terminals:** | Plated leads solderable per MIL-STD-202E, Method 208C |
| **Polarity:** | As marked on body |
| **Mounting Torque:** | 8.8 in. – lbs. max. |
| **Weight:** | 0.3 ounces, 8.0 grams |

## Maximum Ratings And Electrical Characteristics ($T_{amb}$=25˚C)

| Symbols | Parameter | TU 800 | TU 801 | TU 802 | TU 804 | TU 806 | TU 808 | TU 810 | Unit | Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| $V_{RRM}$ | 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 | |
| $I_{F(AV)}$ | Maximum Average Forward Rectified Current (Note 1) | 8.0 | | | | | | | A | $T_C$=100˚C |
| $I_{FSM}$ | Peak Forward Surge Current | 300 | | | | | | | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) |
| $V_F$ | Maximum Instantaneous Forward Voltage Drop per leg | 1.0 | | | | | | | V | $I_F$=8.0A |
| $I_R$ | Maximum DC Reverse Current at Rated DC Blocking Voltage per leg | 5.0 | | | | | | | µA | $T_A$=25°C |
| | | 1.0 | | | | | | | mA | $T_A$=100°C |

| Symbols | Parameter | TU 800 | TU 801 | TU 802 | TU 804 | TU 806 | TU 808 | TU 810 | Unit | Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| $I^2t$ | Rating for Fusing (1ms<t<8.3ms) | 373 | | | | | | | $A^2S$ | |
| $C_J$ | Typical Junction Capacitance | 200 | | | | | | | pF | $V_R$=4V, f=1MHz |
| $R_{\theta JA}$ | Typical Thermal Resistance per leg | 18 | | | | | | | ˚C/W | (Note 2) |
| $R_{\theta JC}$ | Typical Thermal Resistance per leg | 5.0 | | | | | | | ˚C/W | (Note 1) |
| $T_J$,$T_{STG}$ | Operating and Storage Temperature Range | -55 to 150 | | | | | | | ˚C | |

## Note:

1. Unit mounted on 3.0” x 3.0” x 0.11” thick (7.5 x 7.5 x 0.3cm) Al. plate.
2. Unit mounted in free air, no heatsink, P.C.B at 0.375” (9.5mm) lead length with 0.5” x 0.5” (12 x 12mm) copper pads
3. Single Phase, half wave, 60 Hz, resistive or inductive load.
   For capacitive load, derate current by 20%

## Rating and characteristic curves

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

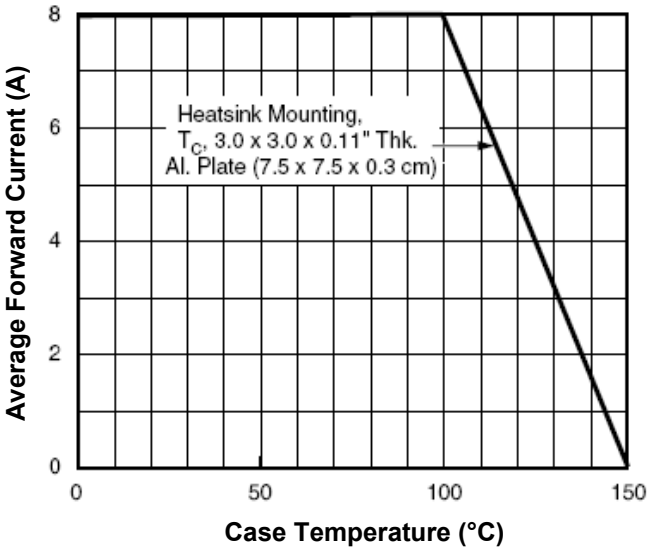



**Fig.2-Max Non-Repetitive Peak Forward Surge Current per leg**

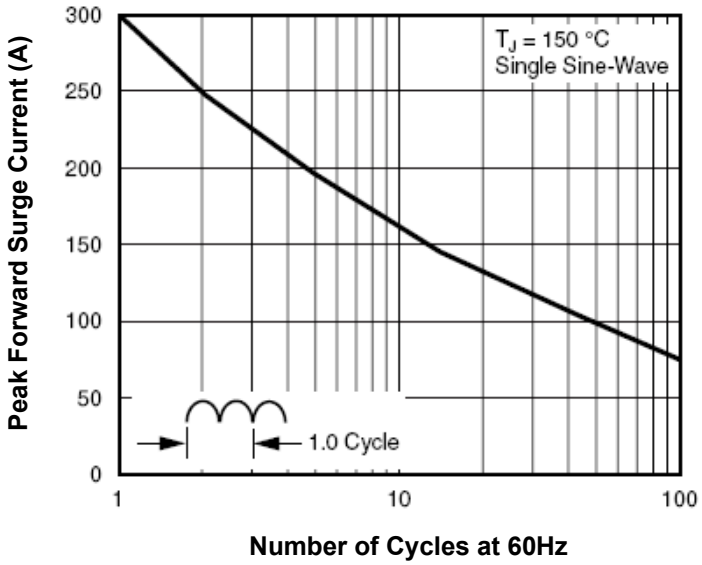


**Fig.3- Typical Instantaneous Forward Characteristics, per leg**

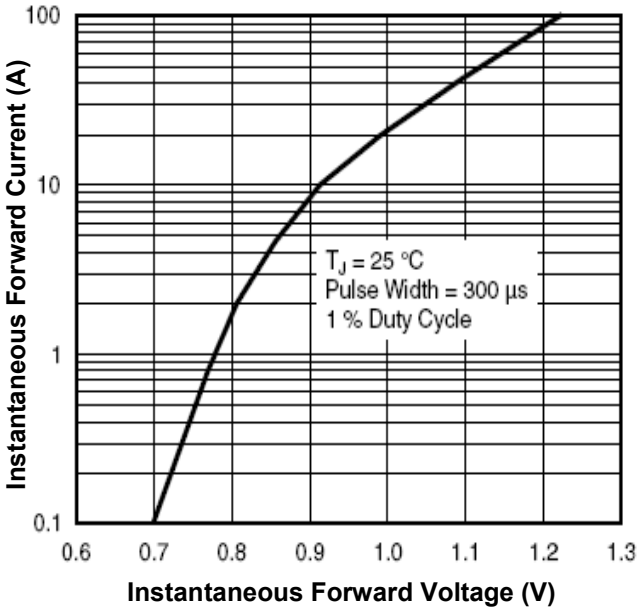



**Fig.4-Typical Reverse Leakage Characteristics per leg**

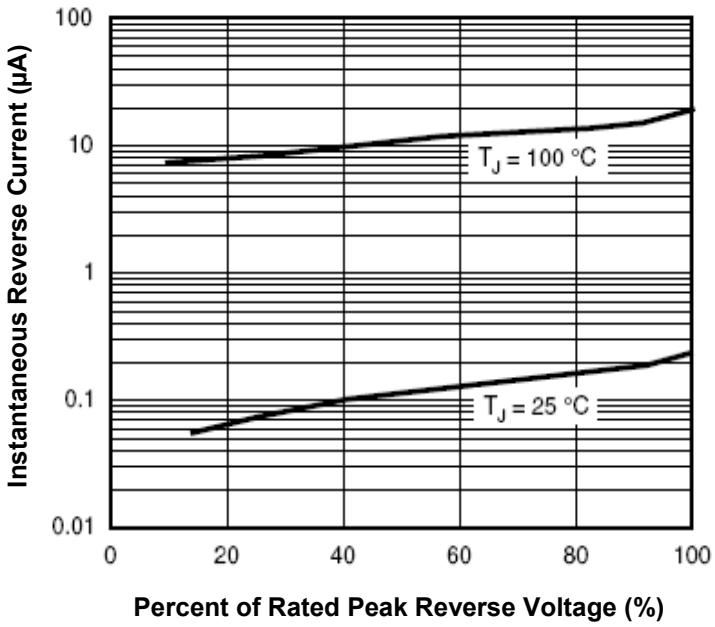
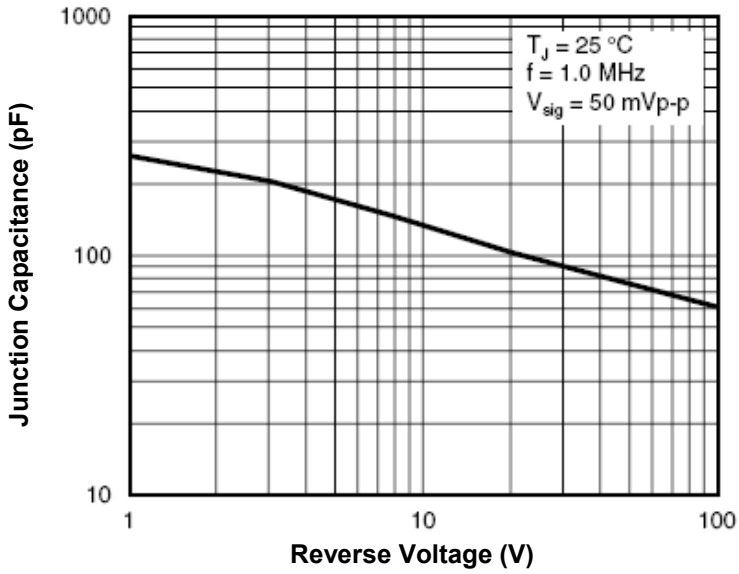
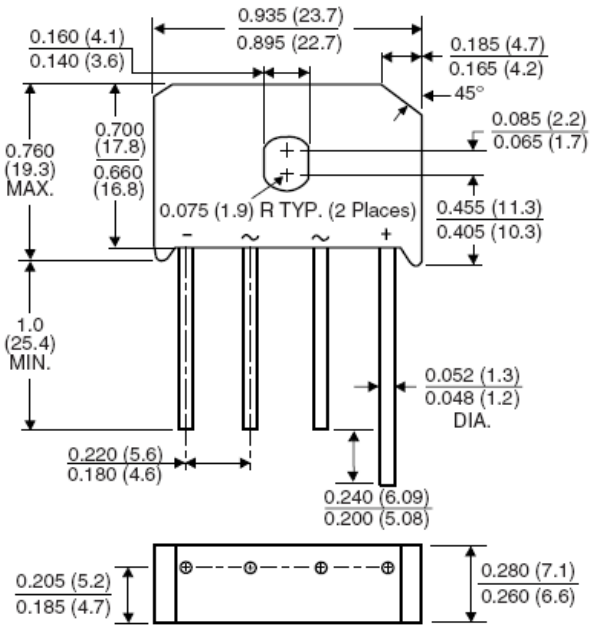



**Fig.5-Typical Junction Capacitance per leg**



## Dimensions in inch (mm)




**TU**

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