

10A 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
- RoHS compliant



TU



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 1000 | TU 1001 | TU 1002 | TU 1004 | TU 1006 | TU 1008 | TU 1010 | 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) | 10 | | | | | | | 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 | 1.1 | | | | | | | V | I _F =10.0A |
| 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 |

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TU1000 - TU1010

| Symbols | Parameter | TU 1000 | TU 1001 | TU 1002 | TU 1004 | TU 1006 | TU 1008 | TU 1010 | Unit | Conditions |
|---------------------------------------|--|------------|---------|---------|---------|---------|---------|---------|------------------|---------------|
| I^2t | Rating for Fusing (1ms<t<8.3ms) | 373 | | | | | | | A ² S | |
| C_J | Typical Junction Capacitance | 200 | | | | | | | pF | VR=4V, f=1MHz |
| R_{θJA} | Typical Thermal Resistance per leg | 16 | | | | | | | °C/W | (Note 2) |
| R_{θJC} | 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:

- Unit mounted on 6.0" x 5.5" x 0.24" thick (15 x 14 x 0.6cm) Al. plate.
- 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
- 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

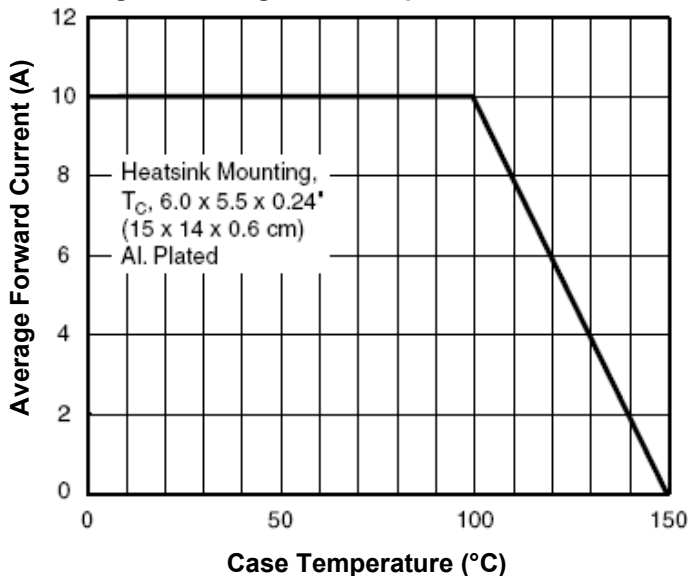
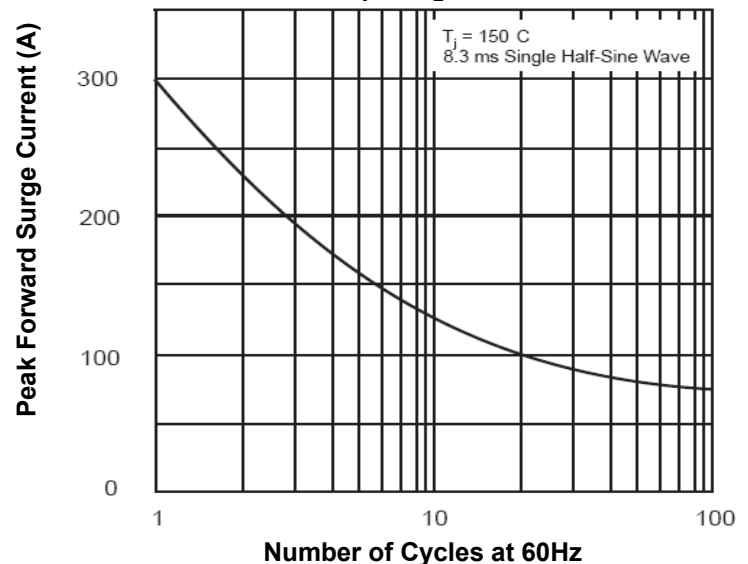


Fig.2-Max Non-Repetitive Peak Forward Surge Current per leg



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Fig.3- Typical Instantaneous Forward Characteristics, per leg

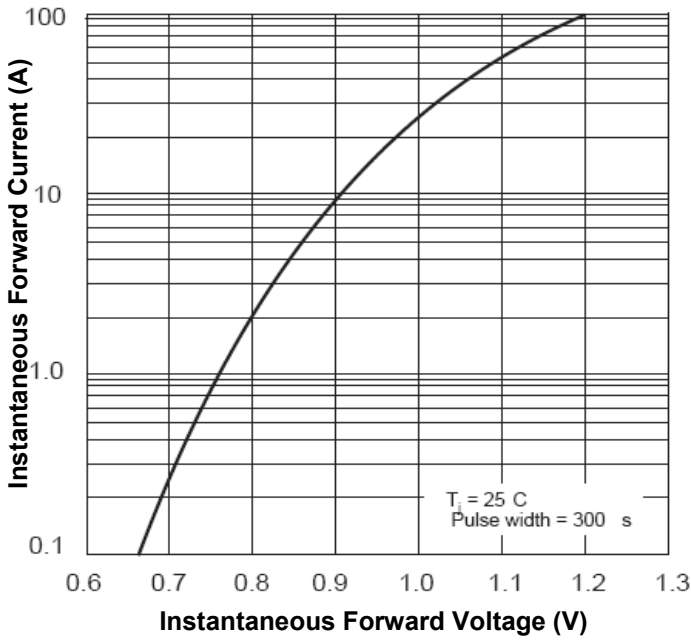


Fig.4-Typical Reverse Leakage Characteristics per leg

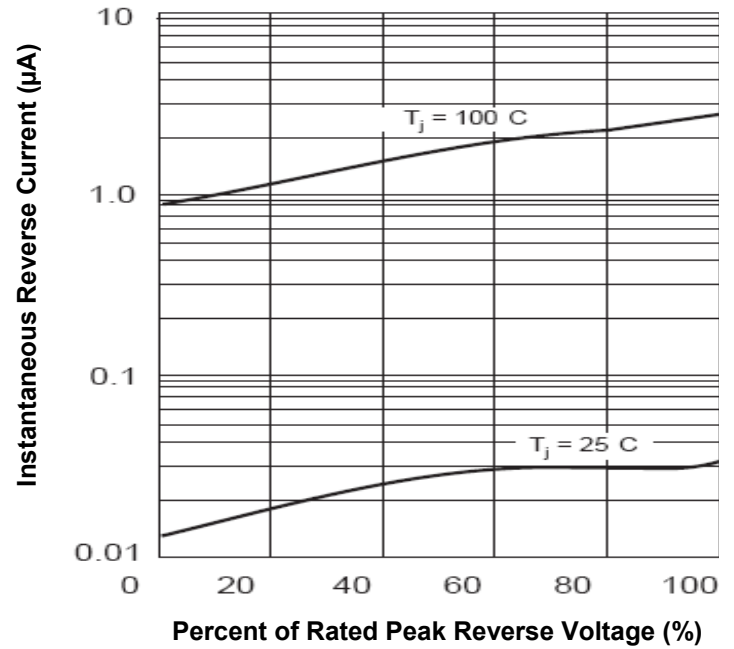
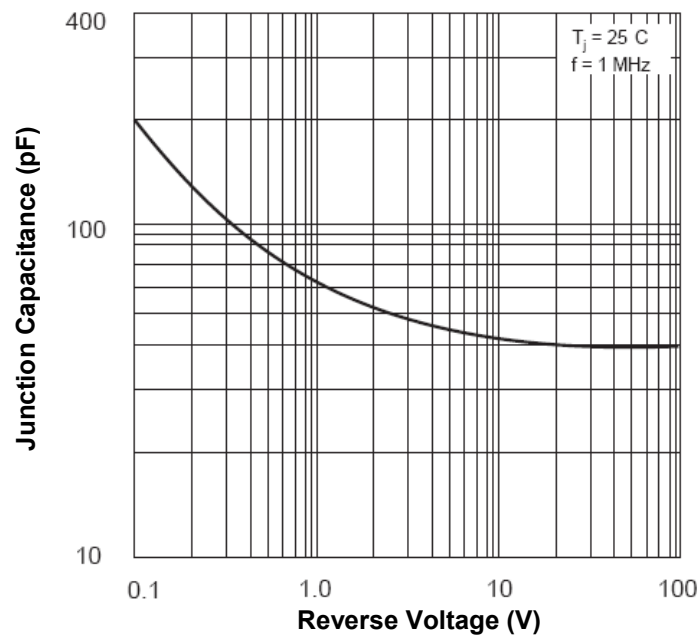
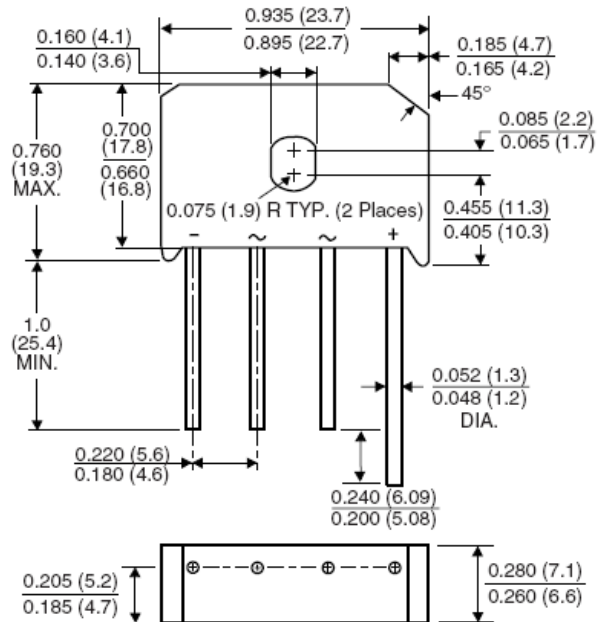


Fig.5-Typical Junction Capacitance per leg



Dimensions in inch (mm)



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How to contact us

US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: taitron@taitroncomponents.com

Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931

TAITRON
components incorporated

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