



**INTERNATIONAL
SEMICONDUCTOR INC.**

10 Amp SINGLE PHASE BRIDGE

**TU1000
thru
TU1010**

FEATURES:

Plastic material used carries Underwriters
Laboratory Flammability Classification 94 V-0
Low Leakage
Surge overload rating - 200 amperes peak
Ideal for printed circuit board applications
Exceeds environmental standards of MIL-STD 19500

MECHANICAL DATA:

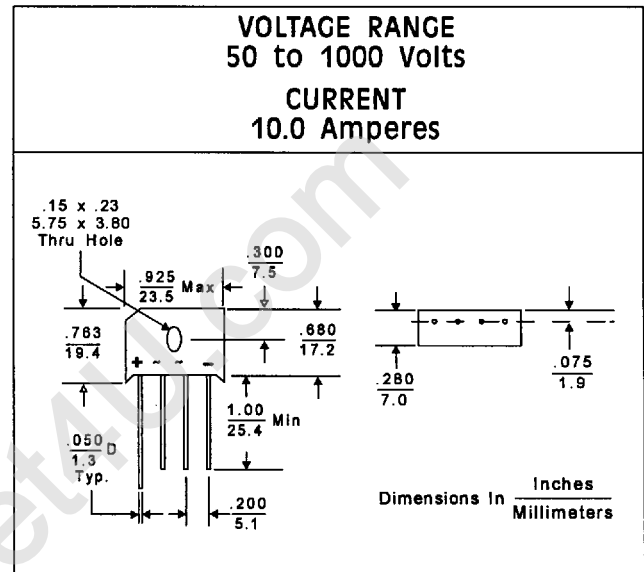
CASE: Reliable low cost construction utilizing
transfer molding techniques

TERMINALS: Leads Solderable per MIL-STD-202,
Method 208

POLARITY: Polarity symbols molded on body

MOUNTING POSITION: Any

WEIGHT: 0.28 OUNCE (7.86 GRAM)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified
Single phase, half wave, 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

	TU1000	TU1001	TU1002	TU1004	TU1006	TU1008	TU1010	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$ at $T_A = 45^\circ\text{C}$	10.0 10.0							A A
Peak Forward Surge Current 8.3 ms single half sine wave superimposed on rated load	300							A _{PK}
Maximum Instantaneous Forward Voltage Drop per element at 5.0 A	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	10.0 1.0							ua ma
Maximum Thermal Resistance $R_{\theta jc}$ (Note 1)	8.0							$^\circ\text{C/W}$
Operating Temperature Range	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	-55 to +150							$^\circ\text{C}$

Note 1: Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length

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TU1000 thru TU1010 BRIDGES

RATING AND CHARACTERISTIC CURVES

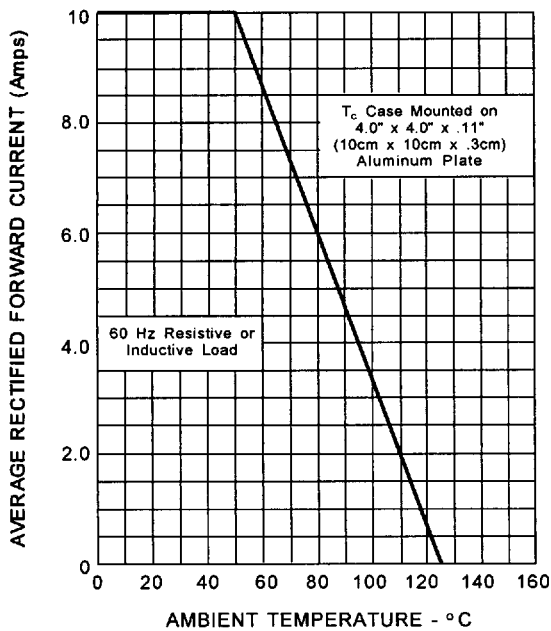


FIG. 2 - FORWARD CURRENT DERATING CURVE

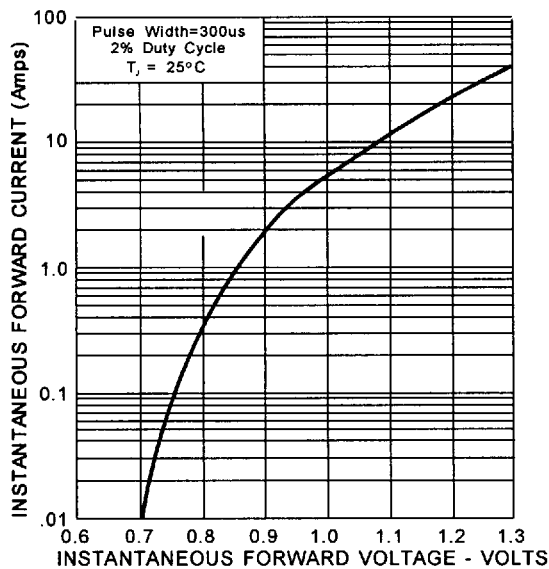


FIG. 5 - TYPICAL FORWARD CHARACTERISTICS PER LEG

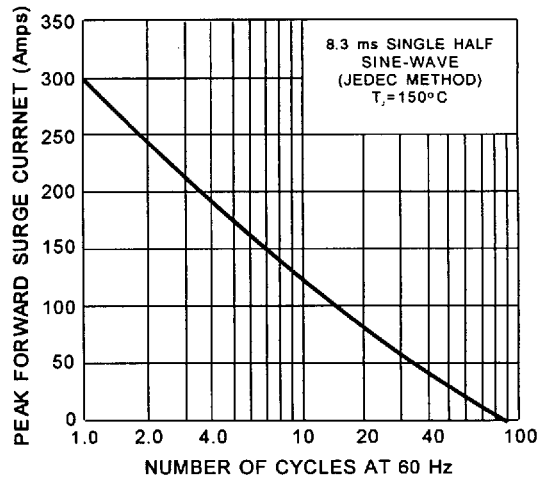


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

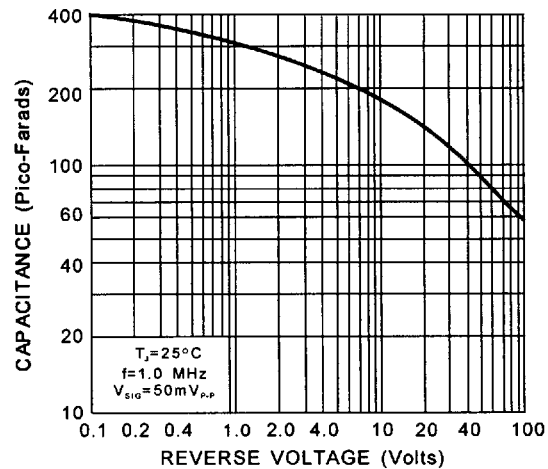


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

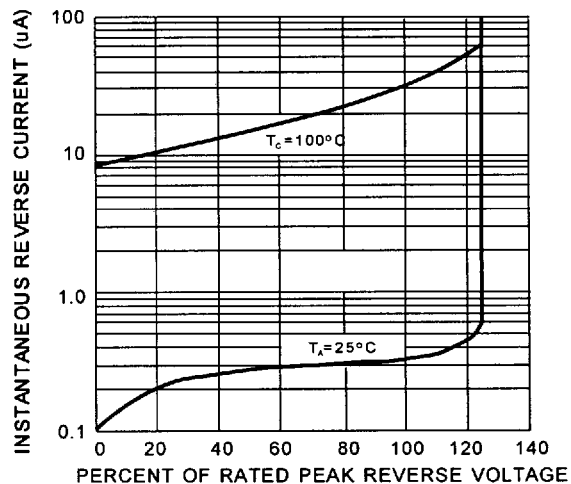


FIG. 6 - TYPICAL REVERSE CHARACTERISTICS

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