

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, 1.375" (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 ($T_{amb}=25^{\circ}C$)

Symbols	Parameter	TU 1000	TU 1001	TU 1002	TU 1004	TU 1006	TU 1008	TU 1010	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Maximum Average Forward Rectified Current (Note 1)	10							A	$T_C=100^{\circ}C$
IFSM	Peak Forward Surge Current	300							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
VF	Maximum Instantaneous Forward Voltage Drop per leg	1.1							V	$I_F=10.0A$
IR	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	5.0							μA	$T_A=25^{\circ}C$
		1.0							mA	$T_A=100^{\circ}C$

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Symbols	Parameter	TU 1000	TU 1001	TU 1002	TU 1004	TU 1006	TU 1008	TU 1010	Unit	Conditions
I^2_t	Rating for Fusing (1ms<t<8.3ms)	373							A ² S	
C_J	Typical Junction Capacitance	200							pF	VR=4V, f=1MHz
$R_{\theta JA}$	Typical Thermal Resistance per leg	16							°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:

- 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

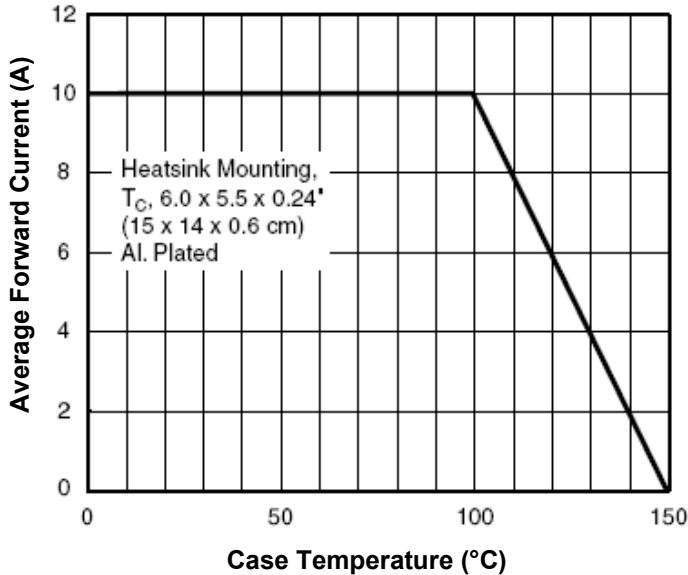
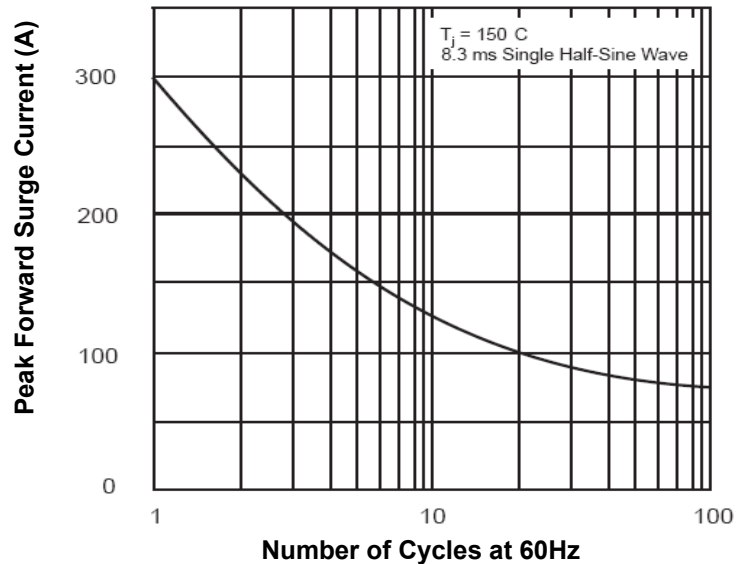


Fig.2-Max Non-Repetitive Peak Forward Surge Current per leg



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Fig.3- Typical Instantaneous Forward Characteristics, per leg

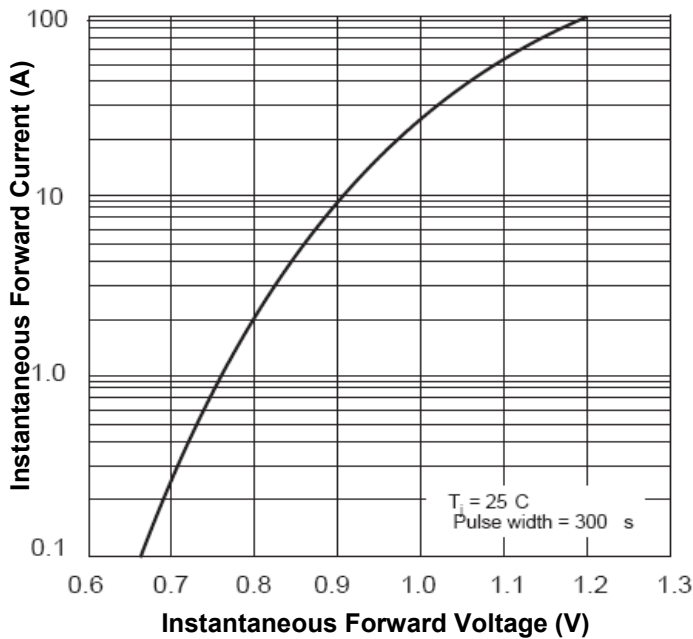


Fig.4-Typical Reverse Leakage Characteristics per leg

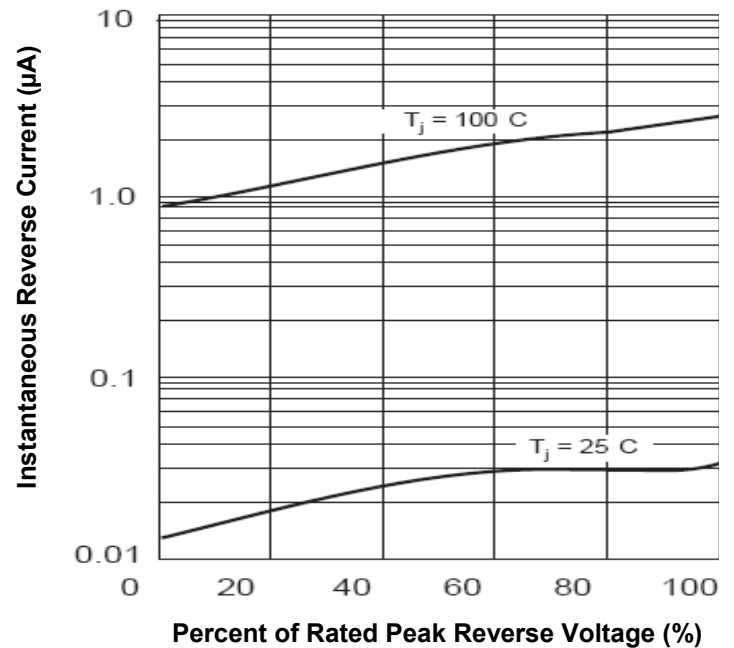
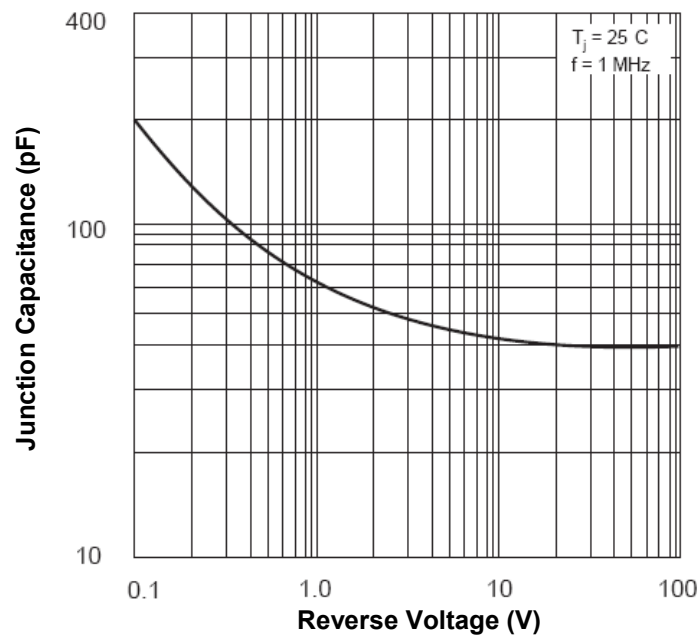
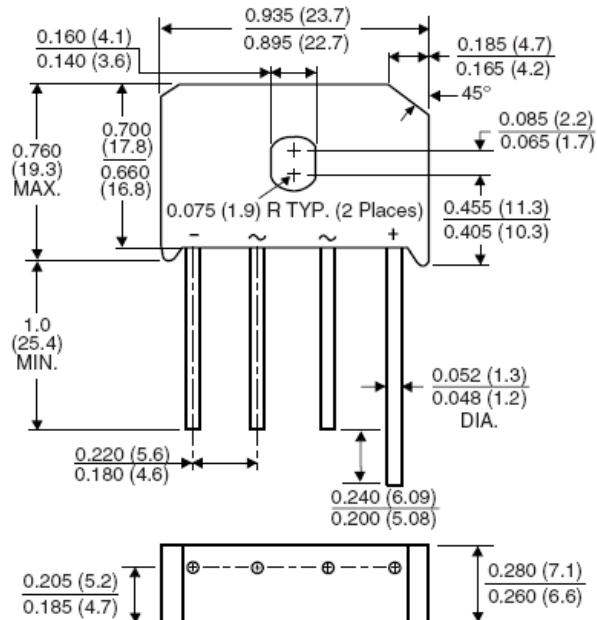


Fig.5-Typical Junction Capacitance per leg



Dimensions in inch (mm)



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