



1U1G ~ 1U5G

GLASS PASSIVATED JUNCTION ULTRAFAST RECOVERY RECTIFIER

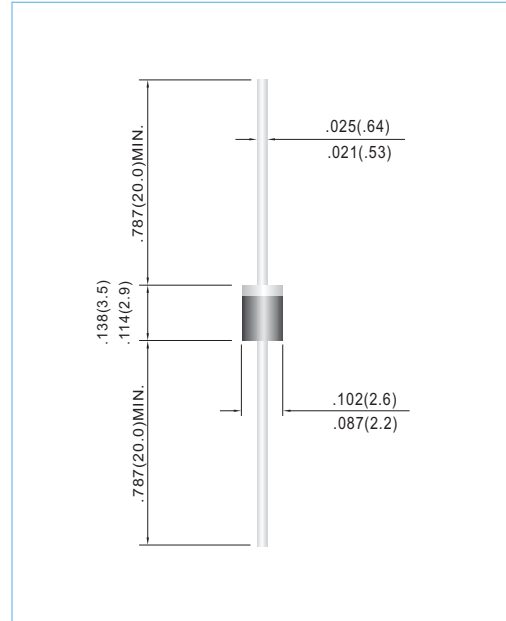
VOLTAGE 50 to 600 Volts **CURRENT** 1.0 Amperes **R-1** Unit: inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast switching for high efficiency.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded plastic, R-1
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.0068 ounce, 0.1937 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	1U1G	1U2G	1U3G	1U4G	1U5G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					A
Maximum Forward Voltage at 1.0A	V_F	1.0		1.3		1.7	V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R	1.0			150		μA
Typical Junction capacitance (Note 1)	C_J	17					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60					$^\circ\text{C} / \text{W}$
Maximum Reverse Recovery Time (Note 3)	t_{rr}	50				100	ns
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150					$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375" (9.5mm) P.C.B. mounted.
3. Reverse Recovery Time $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$



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RATING AND CHARACTERISTIC CURVES

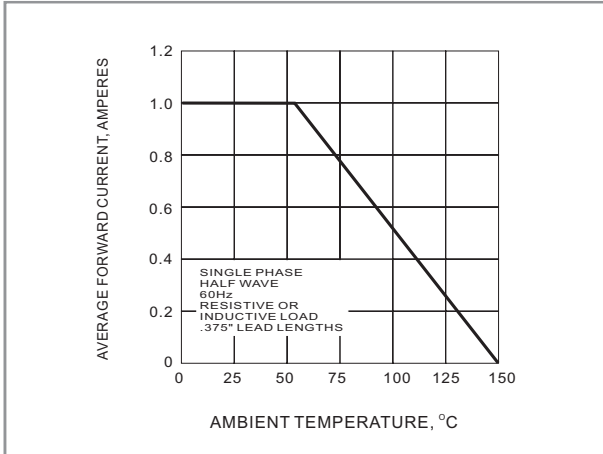


Fig.1 FORWARD CURRENT DERATING CURVE

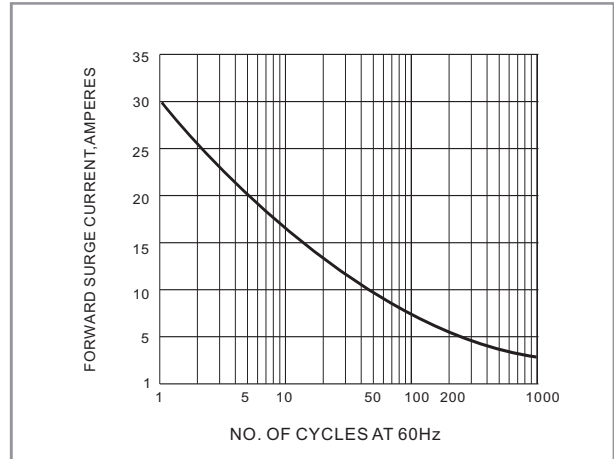


Fig.2 PEAK FORWARD SURGE CURRENT

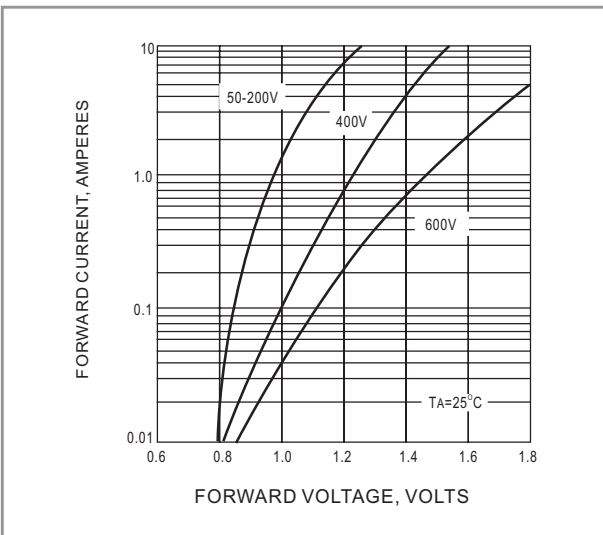


Fig.3 FORWARD CHARACTERISTICS

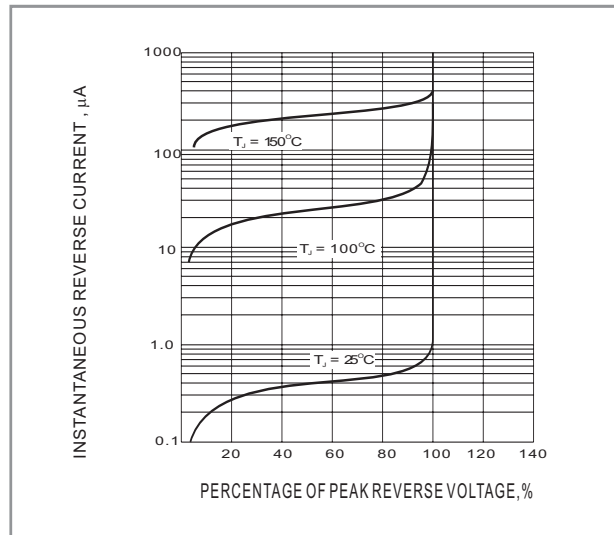


Fig.4 TYPICAL REVERSE CHARACTERISTIC

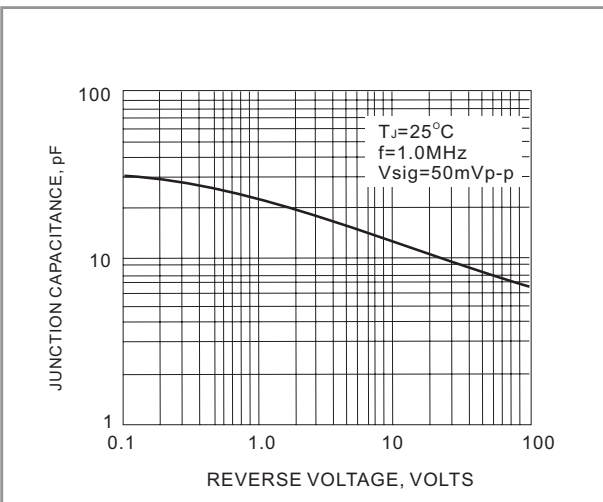


Fig.5 TYPICAL JUNCTION CAPACITANCE