

1U1G THRU 1U6G

GLASS PASSIVATED JUNCTION ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction in R-1 package
- 1 ampere operation at $T_A=55^{\circ}\text{C}$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Ultra Fast switching for high efficiency

MECHANICAL DATA

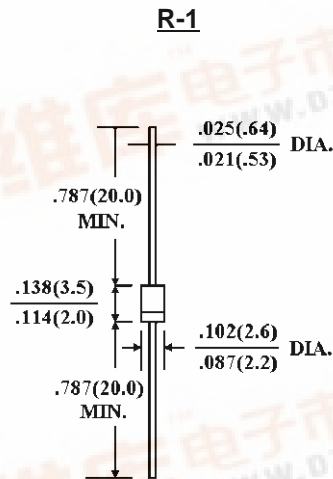
Case: Molded plastic, R-1

Terminals: axial leads, solderable per MIL-STD-202, Method 208

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.0064 ounce, 0.181 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

	1U1G	1U2G	1U3G	1U4G	1U5G	1U6G	UNITS
Peak Reverse Voltage, Repetitive; V_{RM} :	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
DC Reverse Voltage; V_R	50	100	200	400	600	800	V
Average Forward Current, I_o @ $T_A=55^{\circ}\text{C}$ 3/8" lead length, 60 Hz, resistive or inductive load	1.0						A
Peak Forward Surge Current, I_{FM} (surge) 8.3msec. single half sine wave superimposed on rated load(JEDEC method)	30						A
Maximum Forward Voltage V_F @ 1.0A, 25 $^{\circ}\text{C}$	1.00			1.30	1.70		V
Maximum Reverse Current, @ Rated $T_J=25^{\circ}\text{C}$	10.0						$\mu\text{g A}$
Reverse Voltage $T_J=100^{\circ}\text{C}$	150						$\mu\text{g A}$
Typical Junction capacitance (Note 1) C_J	17.0						pF
Typical Junction Resistance (Note 2) $R_{\theta JA}$	60						$^{\circ}\text{C/W}$
Reverse Recovery Time $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$	50	50	50	50	100	100	ns
Operating and Storage Temperature Range	-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 at 0.375" (9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

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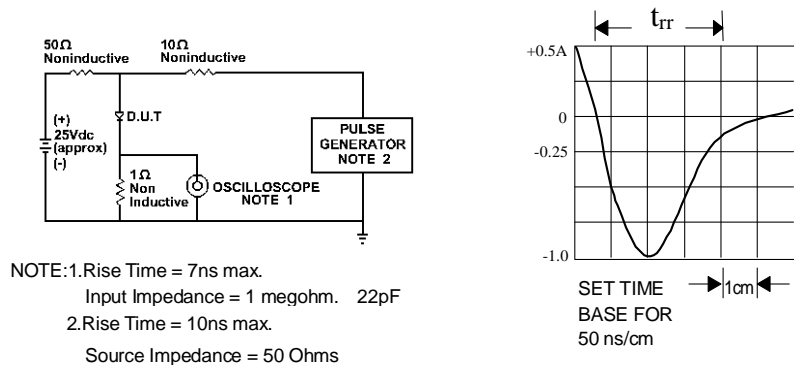


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

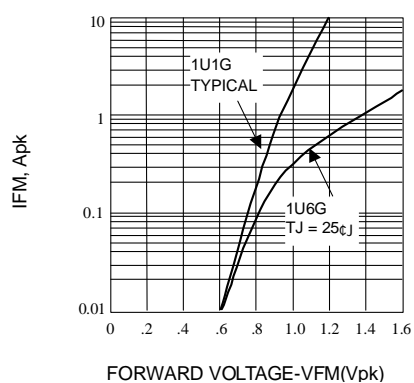


Fig. 2-FORWARD CHARACTERISTICS

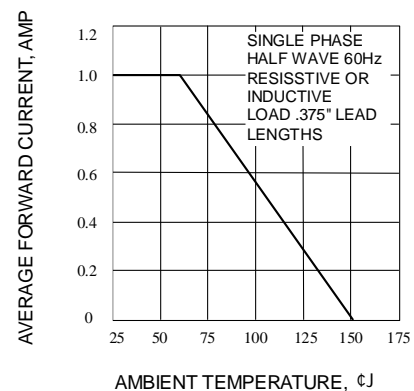


Fig. 3-FORWARD CURRENT DERATING CURVE

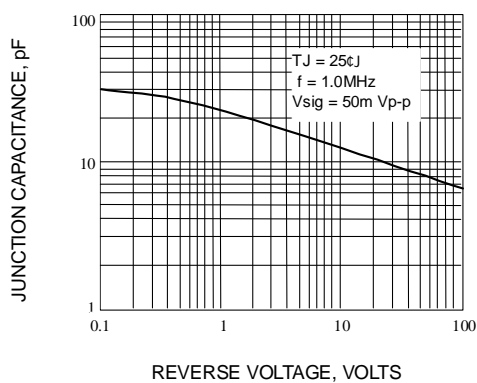


Fig. 4-TYPICAL JUNCTION CAPACITANCE

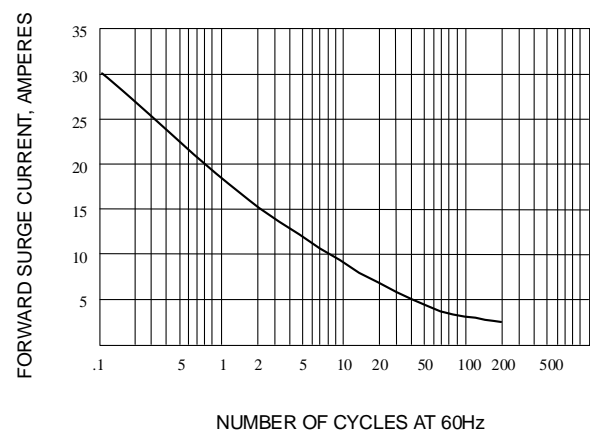


Fig. 5-PEAK FORWARD SURGE CURRENT