

DATA SHEET

1U1G thru 1U6G

GLASS PASSIVATED JUNCTION ULTRAFAST RECOVERY RECTIFIER

VOLTAGE 50 to 800 Volts **CURRENT** 1.0 Amperes

R-1

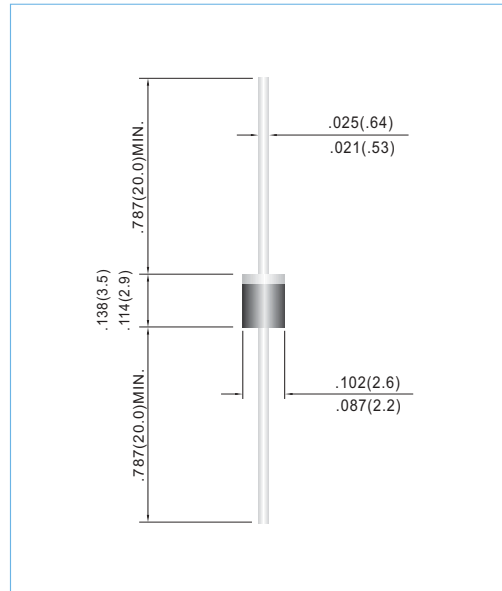
Unit: inch(mm)

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.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

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



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	1U6G	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at TA=55°C	I _{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 TJ=25°C at Rated DC Blocking Voltage TJ=125°C	I _R	10.0 150						uA
Typical Junction capacitance (Note 1)	C _J	17						pF
Typical Thermal Resistance(Note 2)	RθJA	60						°C / 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						°C

NOTES:

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

RATING AND CHARACTERISTIC CURVES

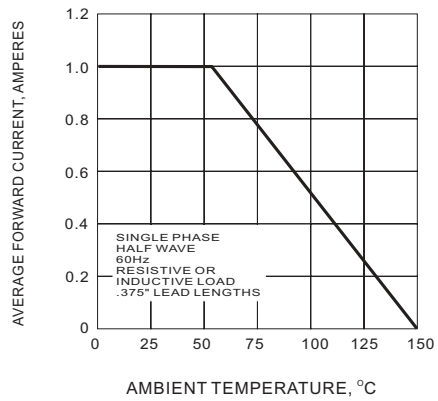


Fig.1 FORWARD CURRENT DERATING CURVE

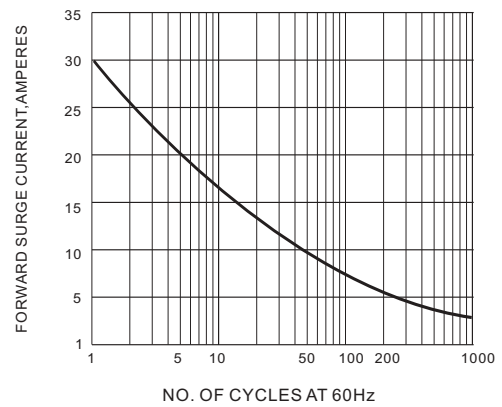


Fig.2 PEAK FORWARD SURGE CURRENT

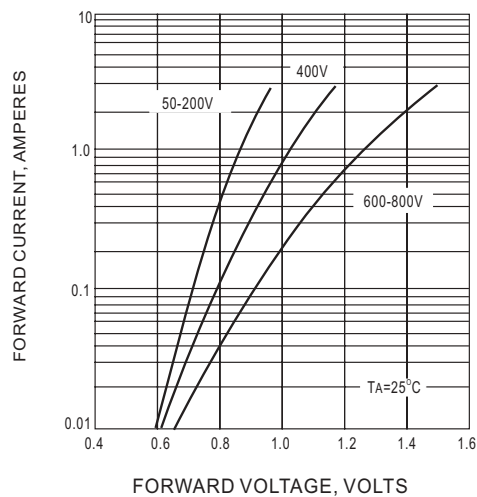


Fig.3 FORWARD CHARACTERISTICS

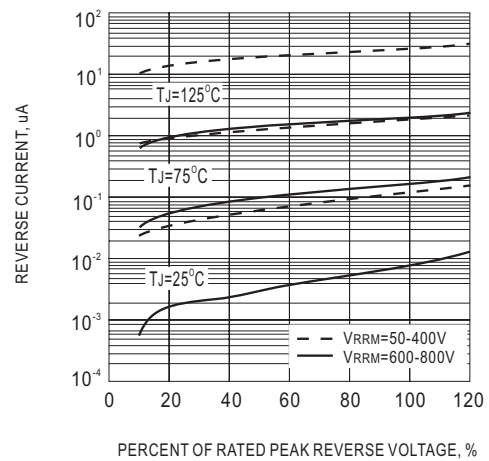


Fig.4 TYPICAL REVERSE CHARACTERISTICS

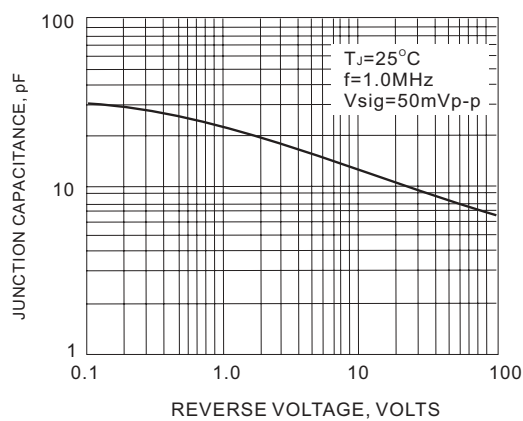


Fig.5 TYPICAL JUNCTION CAPACITANCE