



# DATA SHEET

## 1U1G thru 1U6G

### GLASS PASSIVATED JUNCTION ULTRAFAST RECOVERY RECTIFIER

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

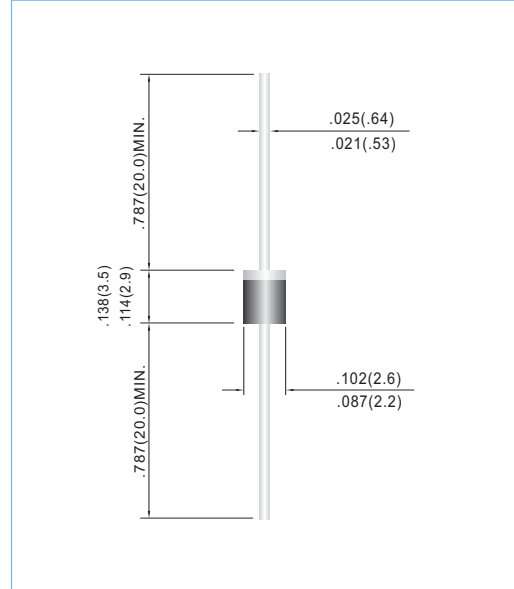
**R-1** Unit: inch(mm)

#### 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.

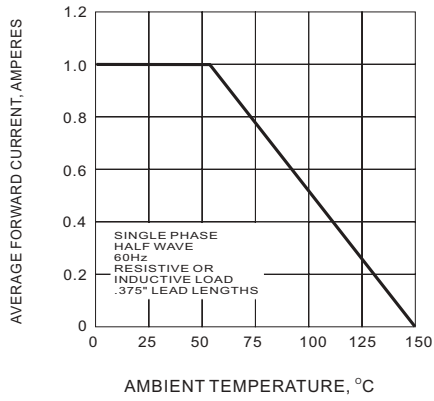
PARAMETER	SYMBOL	1U1G	1U2G	1U3G	1U4G	1U5G	1U6G	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ C$	$I_{AV}$	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 $T_J=25^\circ C$ at Rated DC Blocking Voltage $T_J=125^\circ C$	$I_R$	10.0 150						$\mu A$
Typical Junction capacitance (Note 1)	$C_J$	17						pF
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$	60						$^\circ C / W$
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	50				100		ns
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +150						$^\circ C$

#### NOTES:

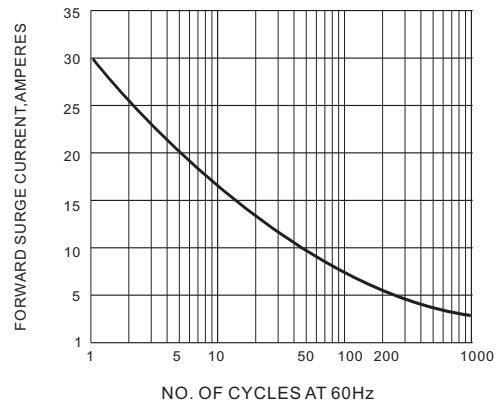
- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted.
- Reverse Recovery Time  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{RR}=.25A$



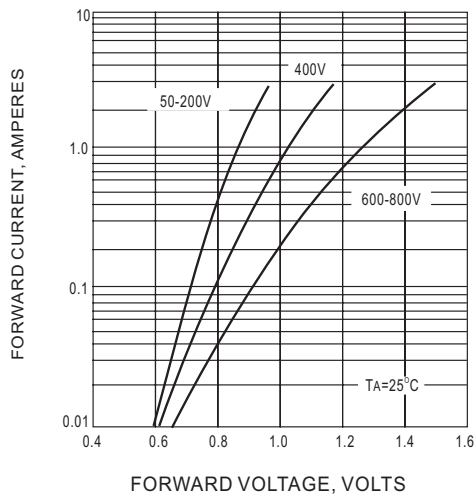
**RATING AND CHARACTERISTIC CURVES**



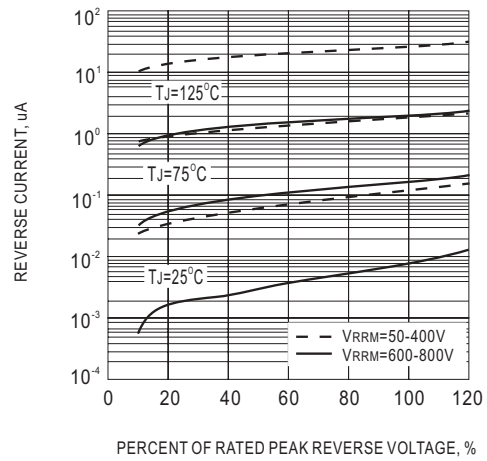
**Fig.1 FORWARD CURRENT DERATING CURVE**



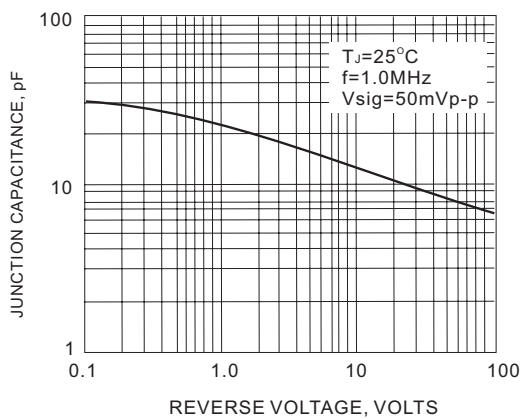
**Fig.2 PEAK FORWARD SURGE CURRENT**



**Fig.3 FORWARD CHARACTERISTICS**



**Fig.4 TYPICAL REVERSE CHARACTERISTICS**



**Fig.5 TYPICAL JUNCTION CAPACITANCE**