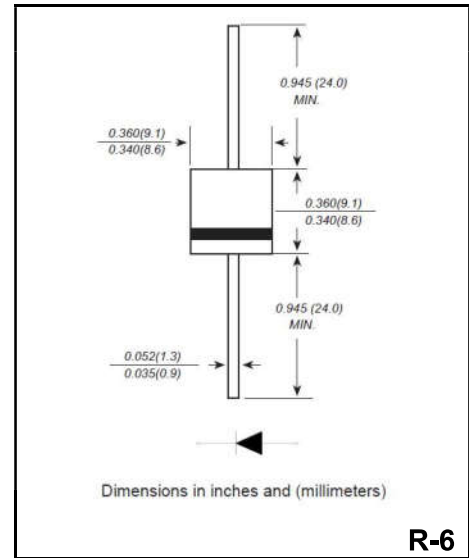


**Fast Recovery Rectifiers**
**Reverse Voltage - 50 to 1000 V**
**Forward Current - 10 A**
**Features**

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Glass passivated junction chip
- ◆Low profile package
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 260 C/10 seconds at terminals

**Mechanical Data**

- ◆Case: R-6
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 2.05g / 0.072oz


**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

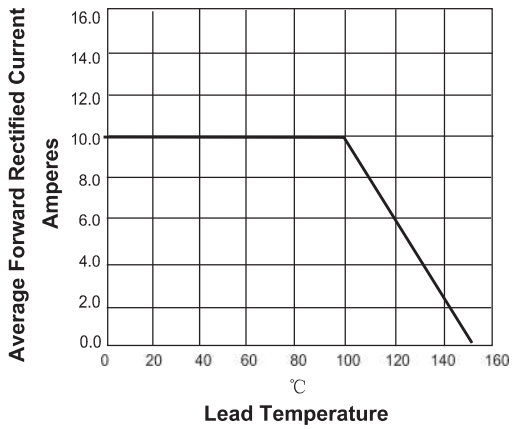
Parameter	Symbols	FR1001G	FR1002G	FR1003G	FR1004G	FR1005G	FR1006G	FR1007G	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	10.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	350.0							A
Maximum Instantaneous Forward Voltage at 10A	$V_F$	1.30							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	2.0 200							$\mu\text{A}$
Maximum reverse recovery time(Note 1)	$T_{rr}$	150				250	500		nS
Typical Junction Capacitance(Note 2)	$C_j$	120.0							pF
Typical Thermal Resistance	$R_{\theta JA}$	40.0							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^\circ\text{C}$

Note:1,Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

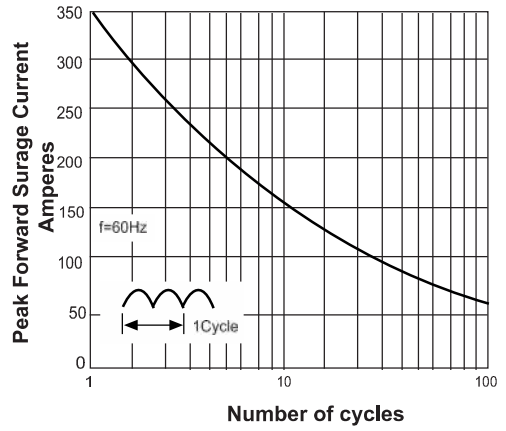
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C

**Ratings and Characteristic Curves**

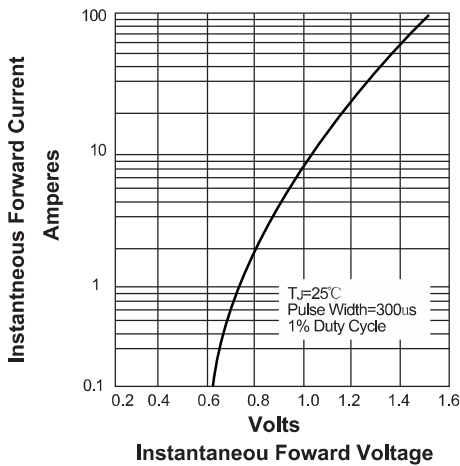
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



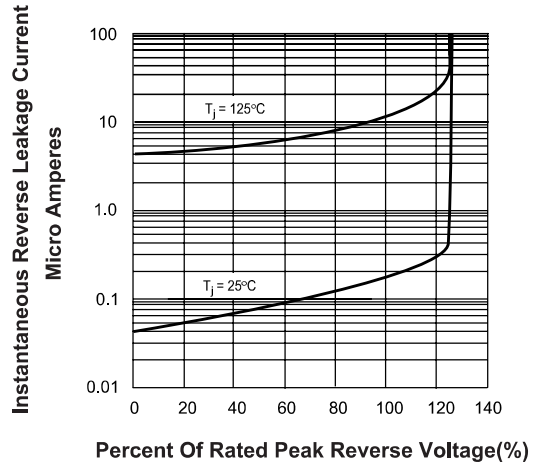
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



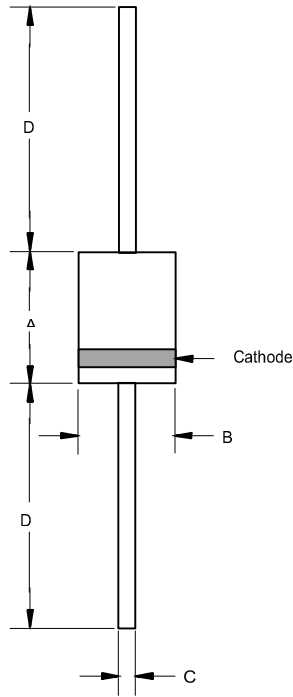
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Package Outline R-6**



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	--	25.40	--	

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
R-6	BOX	500	EIA-481-1