



DATA SHEET

1F1~1F7

FAST RECOVERY PLASTIC RECTIFIERS

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

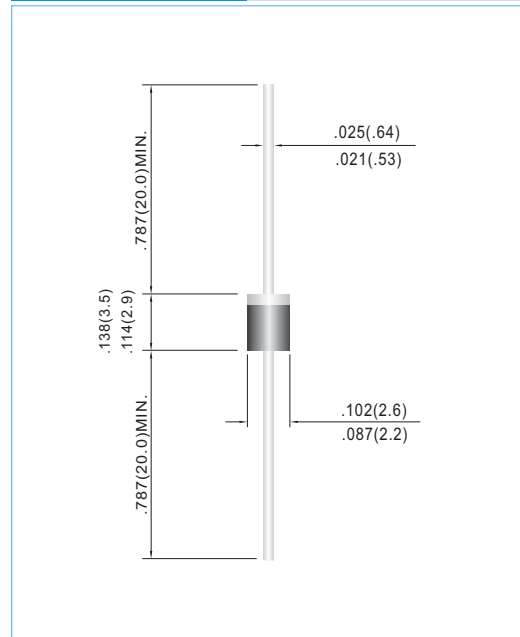
R-1 Unit: inch(mm)

FEATURES

- High current capability.
- Plastic package has Underwriters Laboratories, Flammability Classification 94V-O utilizing, Flame Retardant Epoxy Molding Compound.
- Low leakage.
- Fast switching for high efficiency.
- Exceeds environmental standards of MIL-S-19500/228
- 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	1F1	1F2	1F3	1F4	1F5	1F6	1F7	UNITS
Maximum Recurrent 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 Current .375"(9.5mm) lead length at TA=55°C	I _{AV}	1.0							A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30							A
Maximum Forward Voltage at 1.0A	V _F	1.3							V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=100°C	I _R	5.0 500							uA
Typical Junction capacitance (Note 1)	C _J	12							pF
Maximum Reverse Recovery Time	T _{RR}	150				250	500		ns
Typical Thermal Resistance	R _{θJA}	67							°C / W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 TO +150							°C

- NOTES: 1. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{rr}=.25A
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted with 0.22 x 0.22" (5.5 x 5.5mm) copper pads.



RATING AND CHARACTERISTIC CURVES

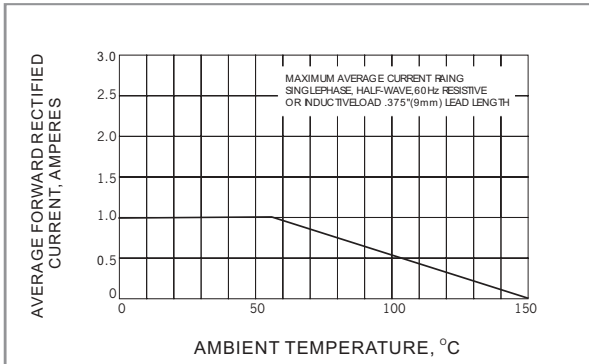


Fig.1 FORWARD CURRENT DERATING CURVE

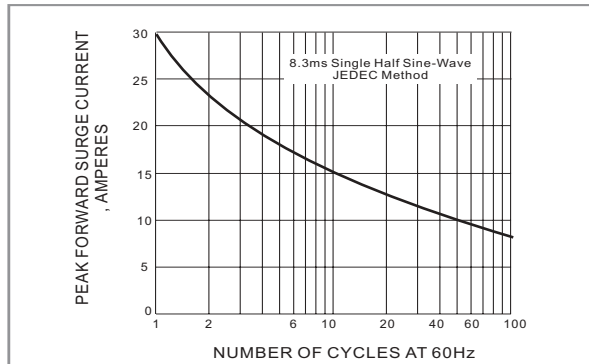


Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

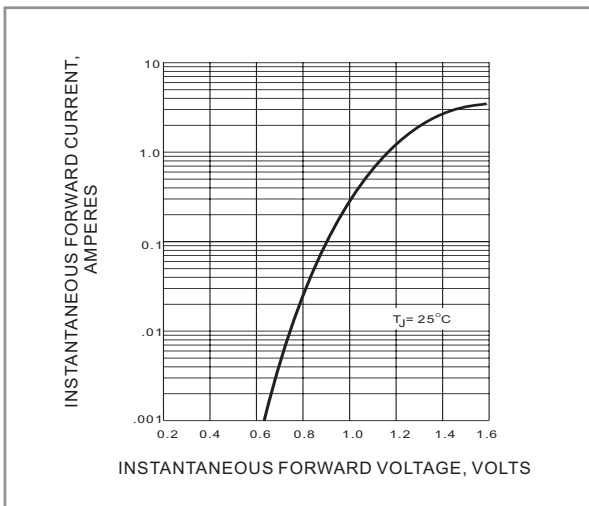


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

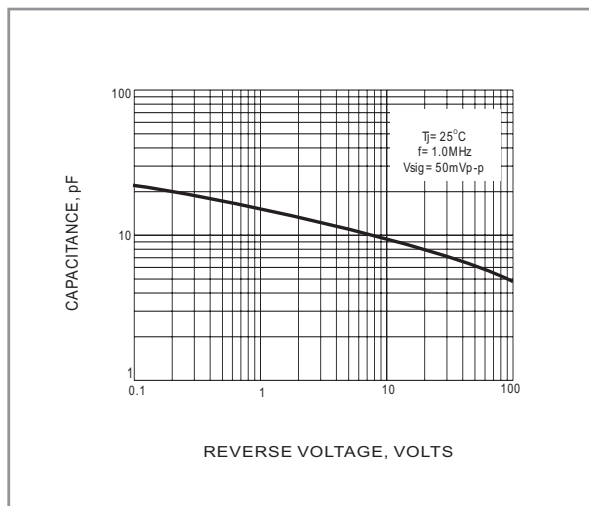


Fig.4 TYPICAL JUNCTION CAPACITANCE