PANJIT SEMI CONDUCTOR

1F1G~1F5G

GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volts **CURRENT** 1.0 Amperes

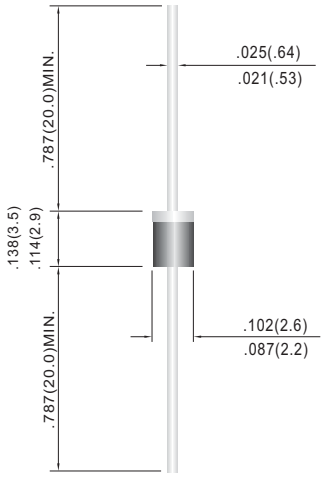
FEATURES

- 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
- In compliance with EU RoHS 2002/95/EC directives

MECHANICALDATA

- Case: Molded plastic, R-1
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.0068 ounce, 0.1937 gram

R-1 Unit: inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	1F1G	1F2G	1F3G	1F4G	1F5G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Current .375"(9.5mm) lead length at T_A=55°C	$I_{F(AV)}$	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 T_J=25°C at Rated DC Blocking Voltage T_J=100°C	I_R	1.0 150					μA
Typical Junction capacitance (Note 1)	C_J	12					pF
Maximum Reverse Recovery Time	t_{rr}	150				250	ns
Typical Thermal Resistance	$R_{\theta JA}$	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.

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RATING AND CHARACTERISTIC CURVES

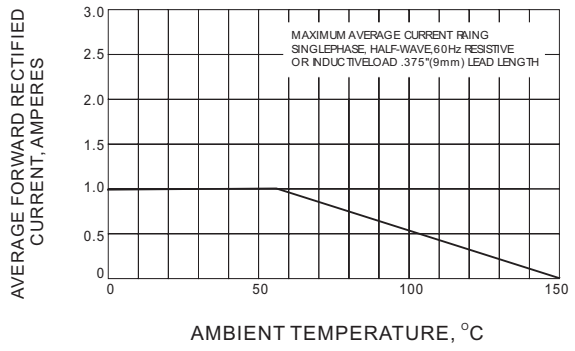


Fig.1 FORWARD CURRENT DERATING CURVE

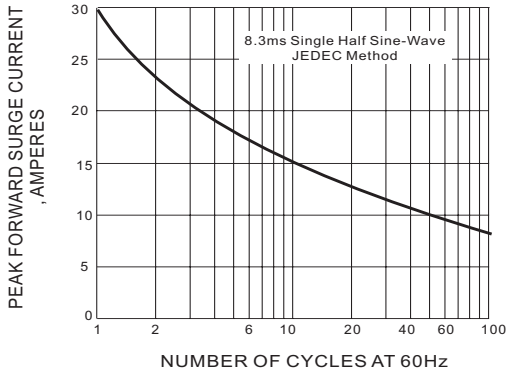


Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

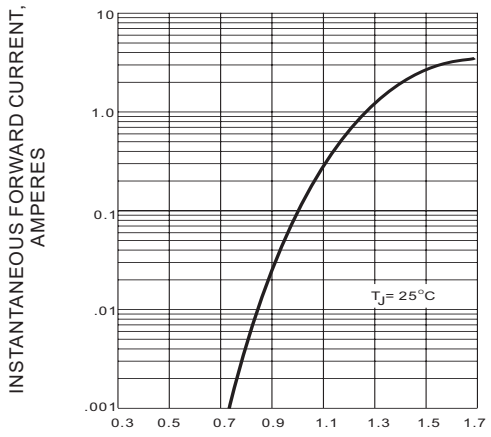


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

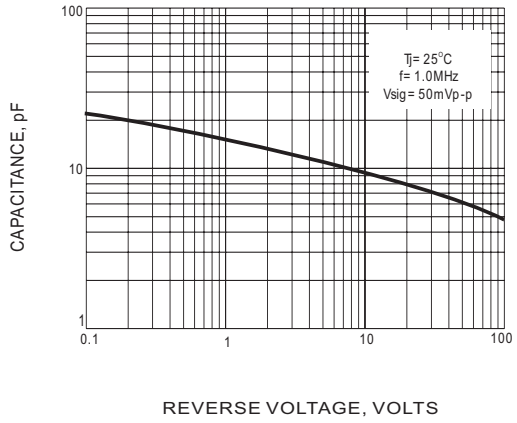


Fig.4 TYPICAL JUNCTION CAPACITANCE

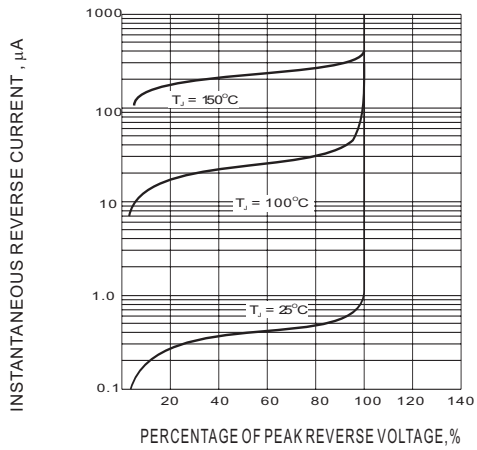


Fig.5-TYPICAL REVERSE CHARACTERISTIC