PANJIT SEMI CONDUCTOR

FR101 THRU FR107

FAST RECOVERY RECTIFIERS

FEATURES

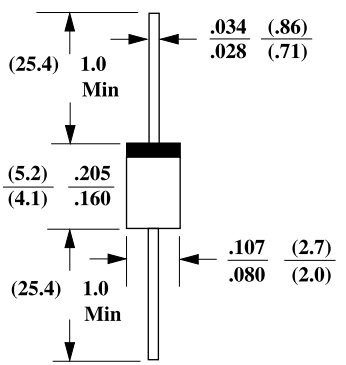
- High surge current capability.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
  Flame Retardant Epoxy Molding Compound.
- Void-free plastic in DO-41 package
- 1.0 ampere operation at T_A =55℃ with no thermal runaway.
- Fast switching for high efficiency.
- Exceeds environmental standards of MIL-STD-19500/228.

MECHANICAL DATA

Case: Molded plastic.
Terminals : Axial leads, solderable per.
MIL - STD - 202, Method 208.
Parity:Band denotes cathode.
Mounting position : Any.
Weight : 0.3 grams.

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Amperes

D0-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATINGS	FR101	FR102	FR103	FR104	FR105	FR106	FR107	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5 mm) Lead Lengths at T_A =55℃	1.0							A
Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC Method)	30							A
Maximum Forward Voltage at 1.0A	1.3							V
Maximum DC Reverse current at rated DC blocking voltage T_A = 25℃	5.0							μA
T_A = 100℃	100							μA
Typical Junction Capacitance (Note1)	15							pF
Maximum Reverse Recover Time (Note2)	150				250	500		ns
Operating And Storage Temperature Range T_J ,T_{STG}	-65 To + 175							℃

NOTES : 1. Measured at 1 MHz and Applied Recovery Voltage Of 4.0 VDC
2. Reverse recovery test conditions: I_F =.5A, I_R =1A, Irr =.25A

RATING AND CHARACTERISTIC CURVES
FR101 THRU FR107

FIG. 1-FORWARD CURRENT DERATING CURVE

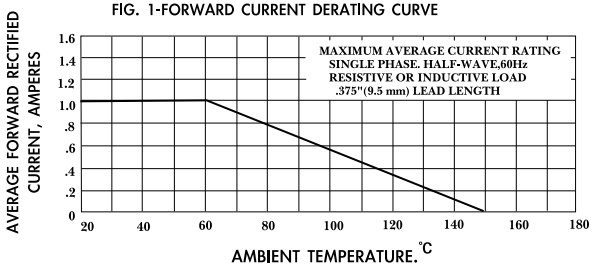


FIG. 2-PEAK FORWARD SURGE CURRENT

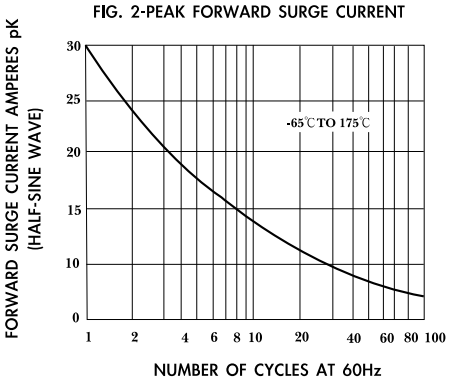


FIG. 4-TYPICAL JUNCTION CAPACITANCE

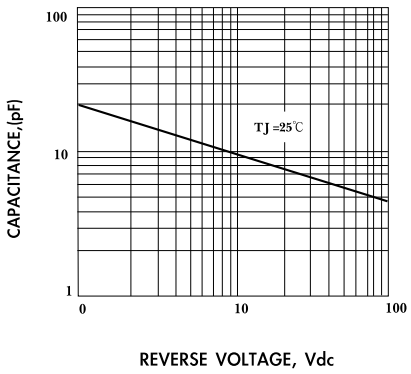


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

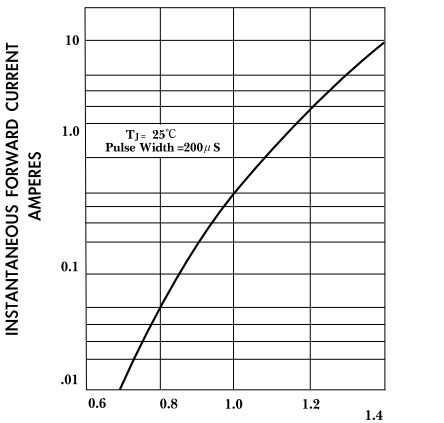
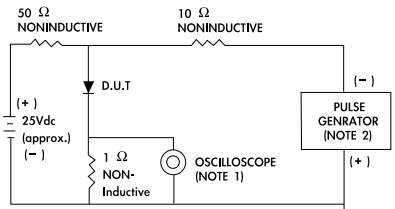


FIG. 5-REVERSE RECOVERY TIME CHARACTERISTICS
AND TEST CIRCUIT DIAGRAM



NOTES:1.Rise Time = 7ns max.
Input Impedance =1megohm.22pF.
2.Rise Time = 10ns max.
Source impedance =50 ohms