



FR101 THRU FR107

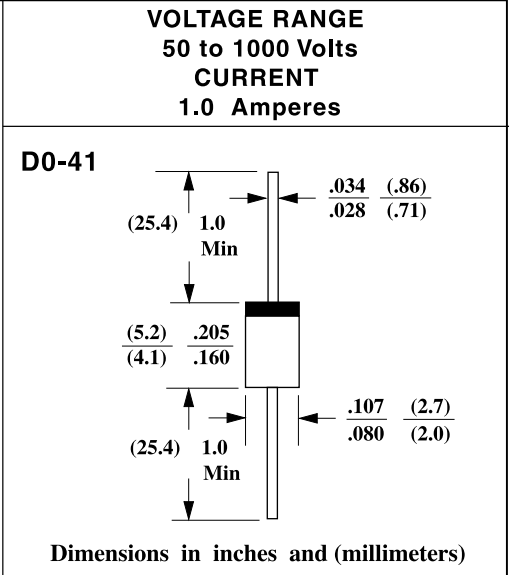
FAST RECOVERY RECTIFIERS

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 $T_A = 55^\circ\text{C}$ 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.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C 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 $T_A = 55^\circ\text{C}$	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 $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0							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							$^\circ\text{C}$

NOTES : 1. Measured at 1 MHz and Applied Recovery Voltage Of 4.0 VDC
 2. Reverse recovery test conditions: $I_F = .5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = .25\text{A}$



RATING AND CHARACTERISTIC CURVES FR101 THRU FR107

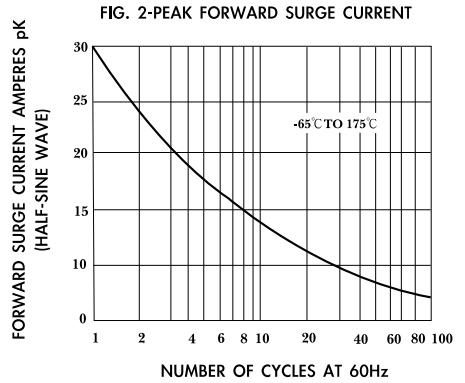
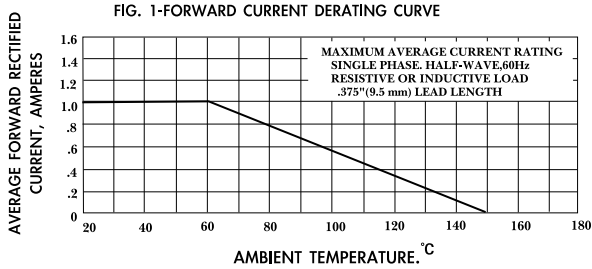


FIG. 4-TYPICAL JUNCTION CAPACITANCE

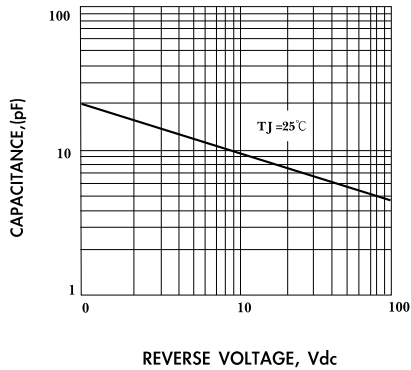


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

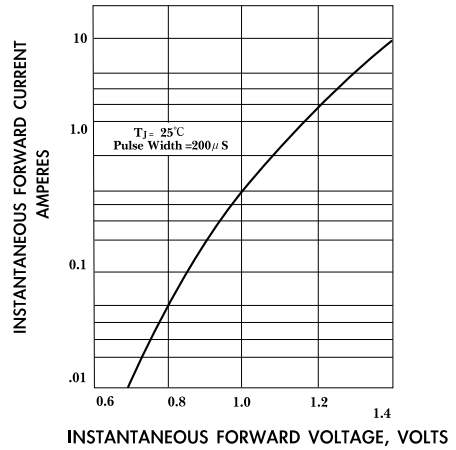
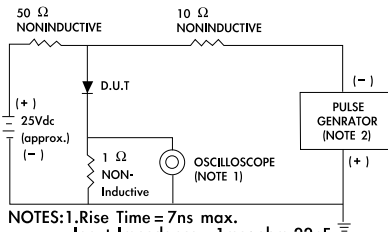


FIG. 5-REVERSE RECOVERY TIME CHARACTERISTICS AND TEST CIRCUIT DIAGRAM



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

