

FR101 THRU FR107

1.0 AMP. FAST RECOVERY RECTIFIERS

Voltage Range
50 to 1000 Volts
Current
1.0 Amperes

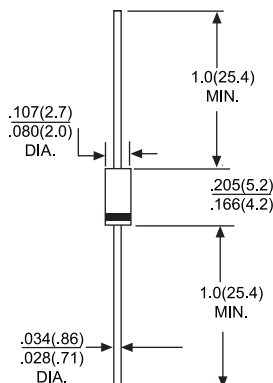
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs. (2.3kg) tension
- Weight: 0.34 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number		FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	v
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	v
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	v
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @TA = 55°C	IF(AV)	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	30							A
Maximum Instantaneous Forward Voltage @1.0A	VF	1.2							v
Maximun DC Reverse Current @ TA = 25°C at Rated DC Blocking Voltage @ TA = 100°C	IR	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	TRR	150				250	500		nS
Typical Junction Capacitance (Note 2)	CJ	15							pF
Typical Thermal Resistance	RθJA RθJC	55 8							°C/W
Operating Temperature Range	TJ	-55 to+125							°C
Storage Temperature Range	TSTG	-55 to+150							°C

NOTES: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

RATING AND CHARACTERISTIC CURVES

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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

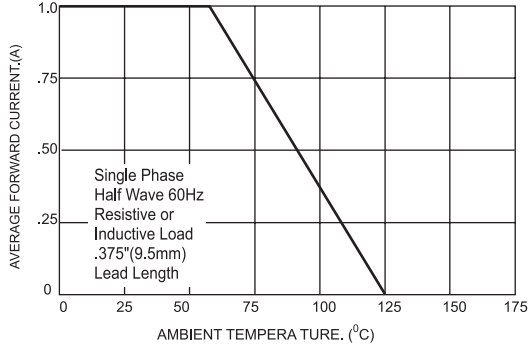


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

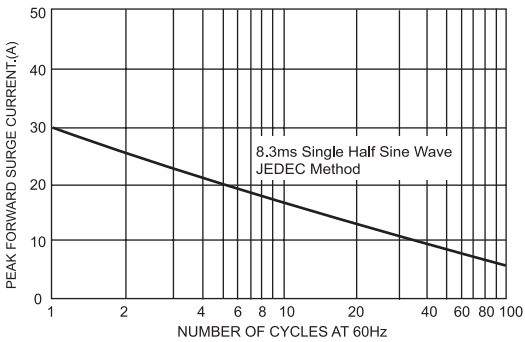


FIG.3-TYPICAL FORWARD CHARACTERISTICS

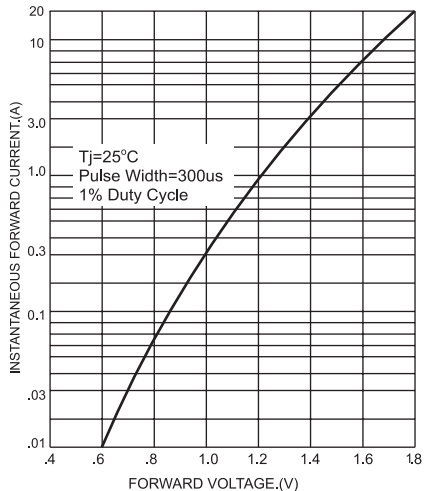


FIG.4- TYPICAL JUNCTION CAPACITANCE

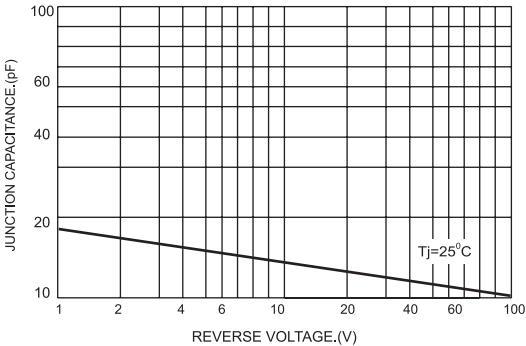
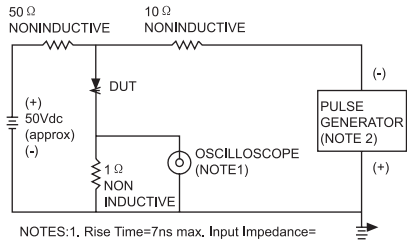


FIG.5- REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

