

1 A Glass Passivated Fast Recovery Rectifiers

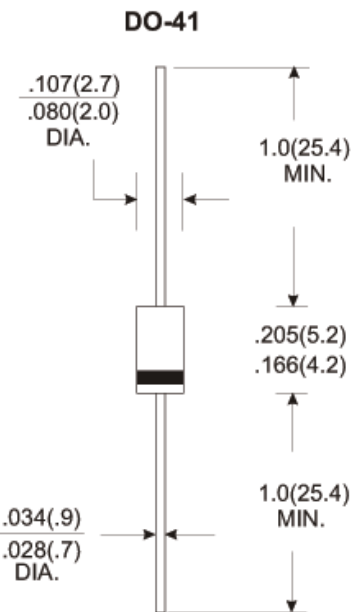
FR101G THRU FR107G 50 to 1000 V 1.0 A

FEATURES

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

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solder able 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



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbols	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current. 375" (9.5mm) Lead Length @ $T_A=55^\circ C$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amp
Maximum instantaneous Forward Voltage @ 1.0A	V_F	1.3							Volts
Maximum Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0 100							uAmp
Maximum Reverse Recovery Time (Note 1)	TRR	150				250	500		nS
Typical Junction Capacitance (Note2)	C_J	15							pF
Operating and Storage Temperature Range	T_J T_{STG}	-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.

RATINGS AND CHARACTERISTIC CURVES (FR101G THRU FR107G)

FIG .1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

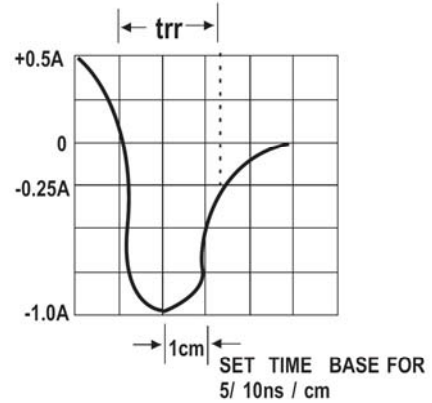
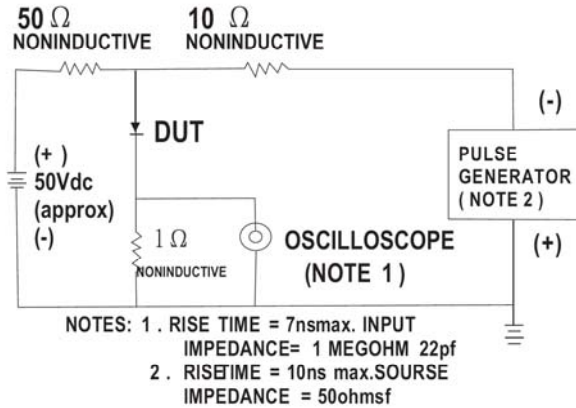


FIG .2- MAXIMUM FORWARD CURRENT DERATING CURVE

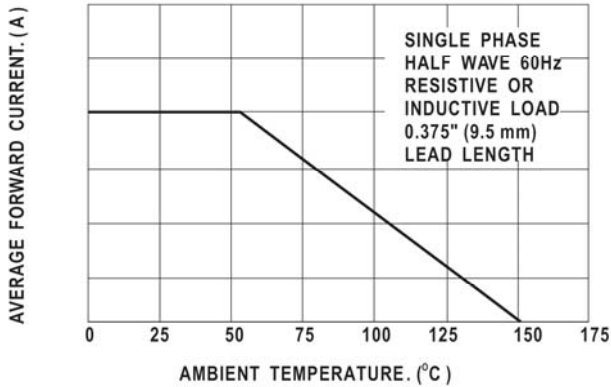


FIG .3-- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

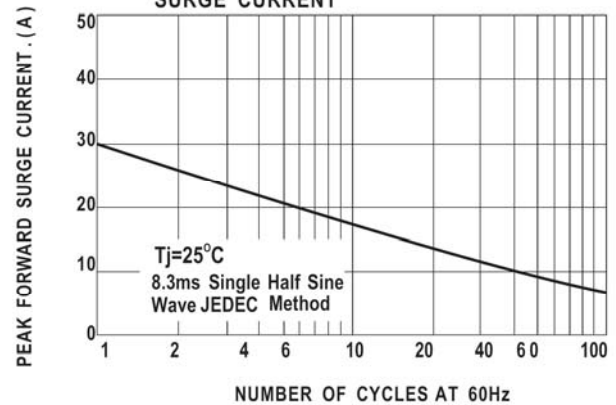


FIG 4.- TYPICAL FORWARD CHARACTERISTICS

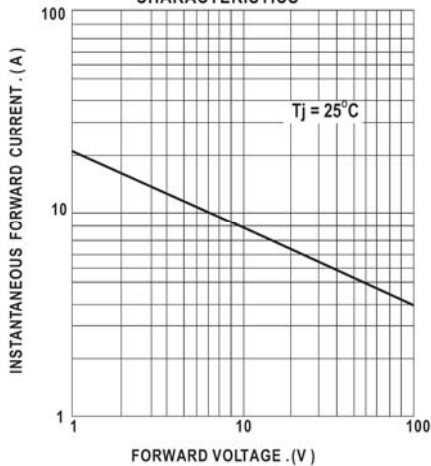


FIG .5- TYPICAL FORWARD CHARACTERISTICS

