JGD

FR101(L)G THRU FR107(L)G

1.0 AMP. GLASS PASSIVATED FAST RECOVERY RECTIFIERS

FEATURES

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

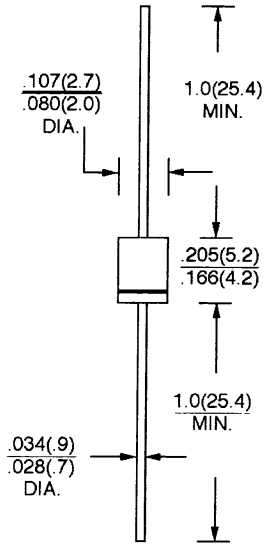
MECHANICAL DATA

* Case: 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
* Mounting Position: Any
* Weight: 0.34 grams (0.22grams A – 405)

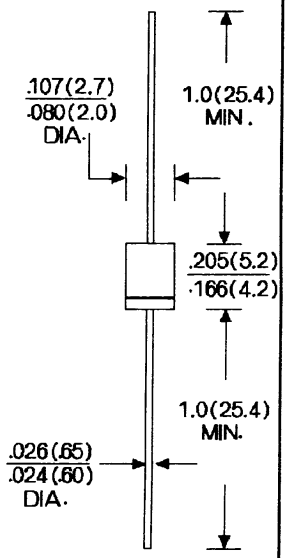
VOLTAGE RANGE

50 to 1000 Volts
CURRENT
1.0 Amperes

DO-41



A-405



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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	FR 101(L)G	FR 102(L)G	FR 103(L)G	FR 104(L)G	FR 105(L)G	FR 106(L)G	FR 107(L)G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length @ T_A = 55℃	$I_{F(AV)}$	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 Instantaneous Forward Voltage at 1.0A	V_F	1.3							V
Maximum D.C Reverse Current @ T_A = 25℃ at Rated D.C Blocking Voltage @ T_A = 125℃	I_R	5.0 100							μA μA
Maximum Reverse Recovery Time(Note1)	T_{RR}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_J	15							pF
Operating and Storage Temperature Range	T_J, T_{STG}	– 65 to + 150							℃

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 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (FR101(L)G THRU FR107(L)G)

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

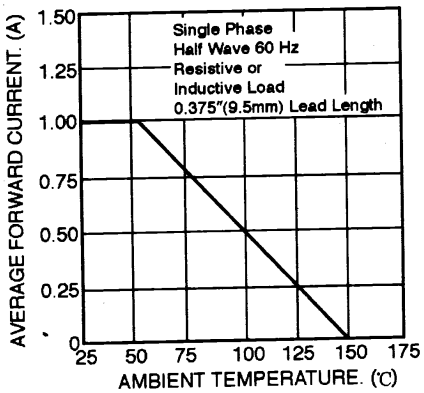


FIG.2 – MAXIMUM NON – REPETITIVE FORWARD SURGE CURRENT

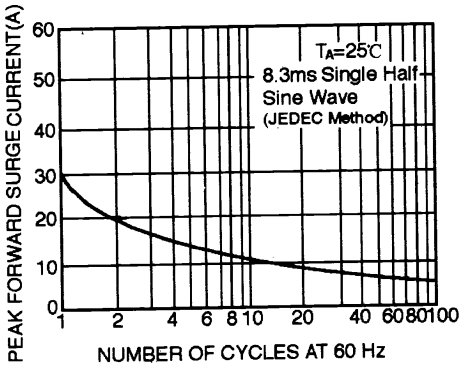


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

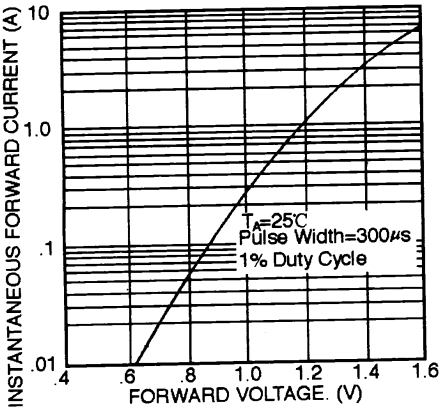


FIG.4 – TYPICAL JUNCTION CAPACITANCE

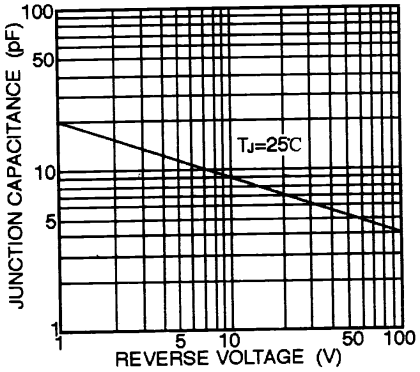
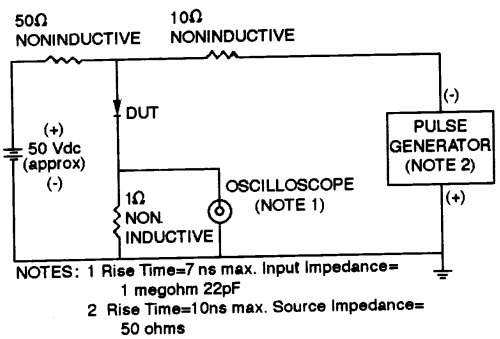


FIG.5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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