



FR101G THRU FR107G SPECIFICATIONS

Rev. A

1A FAST RECOVERY GLASS PASSIVATED RECTIFIER

Diagram illustrating the dimensions of the 1A Fast Recovery Glass Passivated Rectifier. The dimensions are labeled as follows:

- A: Total length (2 PL)
- B: Body length
- C: Lead length
- D: Lead diameter

Value Inch[mm]		
Dim.	Min.	Max.
A	1.000[25.40]	---
B	0.166[4.22]	0.205[5.21]
C	0.080[2.03]	0.107[2.72]
D	0.028[0.71]	0.034[0.86]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. GLASS PASSIVATED CHIP JUNCTION
3. HIGH SURGE CURRENT CAPABILITY
4. CASE: TRANSFER MOLDED, DO-41
5. DIMENSIONS IN INCHES AND (MILLIMETERS)
6. POLARITY: INDICATED BY CATHODE BAND
7. WEIGHT : 0.34 GRAMS
8. TERMINAL SOLDERABILITY: PER MIL-STD-202, METHOD 208
9. RoHS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED. STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

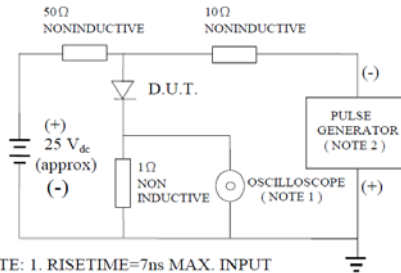
RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT, 0.375"(9.5mm) LEAD LENGTH @ 55°C	I_O	1	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	30	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	C_J	15	pF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50	°C/W
MAXIMUM FORWARD VOLTAGE	V_F	1.3	V
MAXIMUM REVERSE CURRENT @ 25°C	I_R	5	uA
MAXIMUM REVERSE CURRENT @ 100°C	I_R	50	uA

1. MEASURED @ 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. BOTH LEADS ATTACHED TO HEATSINK 20×20×1 (mm) COPPER PLATE AT LEAD LENGTH 5mm
3. REVERSE RECOVERY TEST CONDITIONS: $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$
4. MAXIMUM FORWARD VOLTAGE AT I_O DC

PART NUMBER	MAX RECURRENT PK REV VOLTAGE V_{RRM} (V)	MAX RMS VOLTAGE V_{RMS} (V)	MAX DC BLOCKING VOLTAGE V_{DC} (V)	MAX REV RECOVERY TIME T_{RR} (nS)
FR101G	50	35	50	150
FR102G	100	70	100	150
FR103G	200	140	200	150
FR104G	400	280	400	150
FR105G	600	420	600	250
FR106G	800	560	800	500
FR107G	1000	700	1000	500

RATING AND CHARACTERISTIC CURVES

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



NOTE: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1 MEGOHM 22PF
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50OHMS

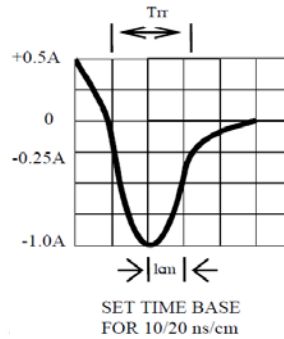


Fig. 2-MAXIMUM FORWARD CURRENT DERATING CURVE

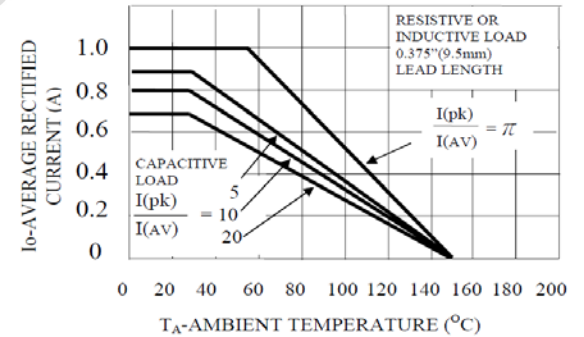


FIG. 3-TYPICAL JUNCTION CAPACITANCE

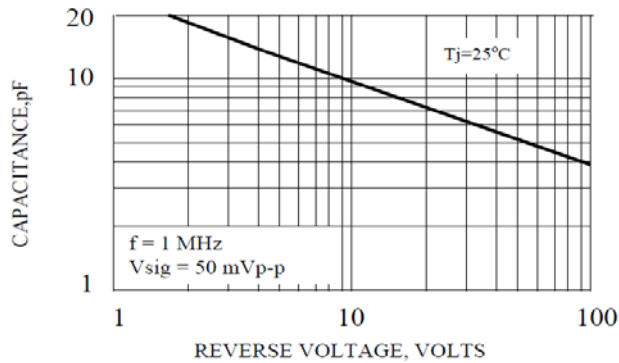


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

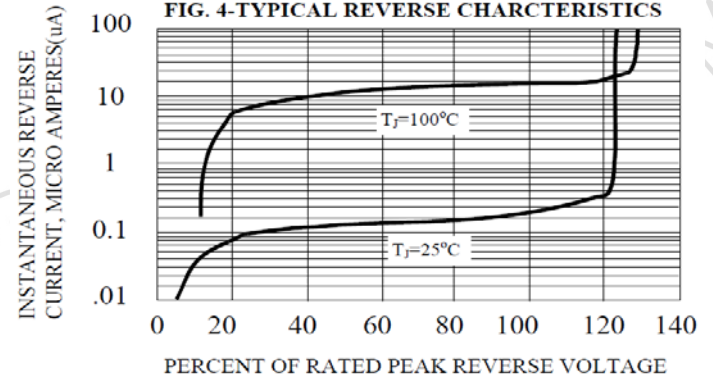


Fig. 5-MAXIMUM FORWARD SURGE CURRENT

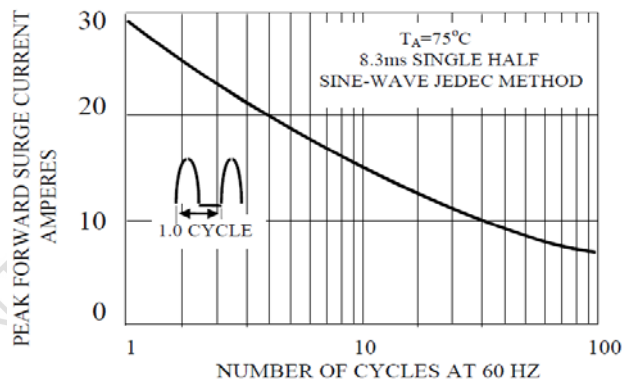


FIG. 6-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

