

# FR101G THRU FR107G

## FAST RECOVERY GLASS PASSIVATED RECTIFIERS

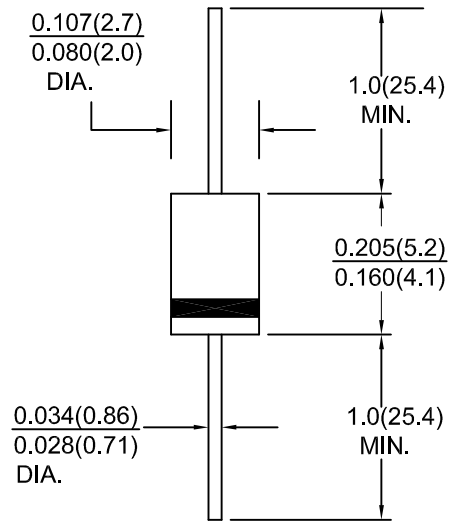
### FEATURES:

- High temperature bonded construction
- Fast switching for use in high frequency circuit
- No thermal runaway at 1 Amp. Current  $T_a=55^\circ\text{C}$
- High temperature soldering guaranteed :  $250^\circ\text{C}/10$  seconds, 0.375" lead length, 5lbs.(2.3kg) tension

### MECHANICAL DATA

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy  
 Terminals : Axial leads, solderable per MIL-STD-202, Method 208  
 Polarity : Color band on body denotes cathode end  
 Mounting Position : Any  
 Weight : 0.33 grams, 0.012 ounce

### DO-204AL(DO-41)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at  $25^\circ\text{C}$  ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	FR 101G	FR 102G	FR 103G	FR 104G	FR 105G	FR 106G	FR 107G	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 lead length at $T_a=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak forward surge current .8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	$I_{FSM}$	30.0							Amps
Maximum instantaneous forward voltage drop at 1.0 A	$V_F$	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage $T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	$I_R$	5.0 200.0							$\mu\text{A}$
Typical reverse recovery time (note 1)	$t_{rr}$	150	150	150	150	250	250	500	nS
Typical thermal resistance	$R_{th-JA}$	55							$^\circ\text{C}/\text{W}$
Typical junction capacitance (note 2)	$C_j$	15.0							pF
Operating junction and storage temperature range	$T_j, T_{stg}$	-65 to +150							$^\circ\text{C}$

NOTES:1. Reverse recovery test condition;  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and Applied reverse voltage of 4.0V.DC

# RATINGS AND CHARACTERISTIC CURVES FR101G THRU FR107G

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

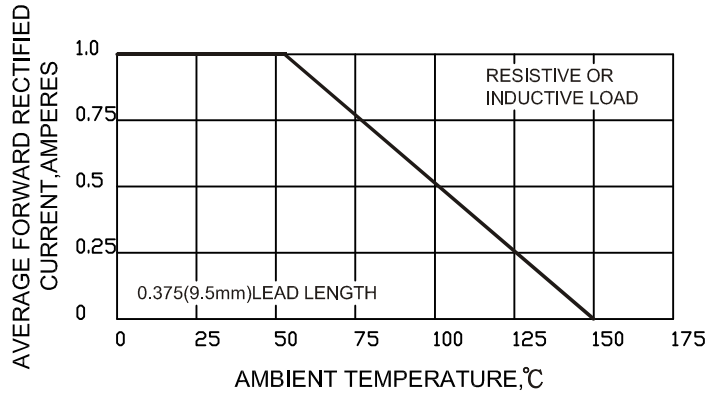


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

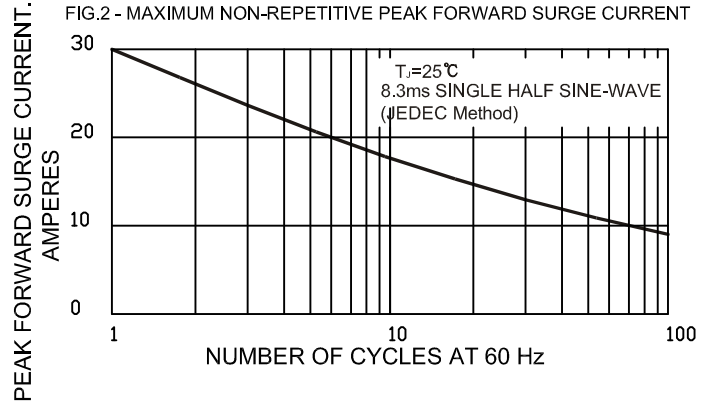


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

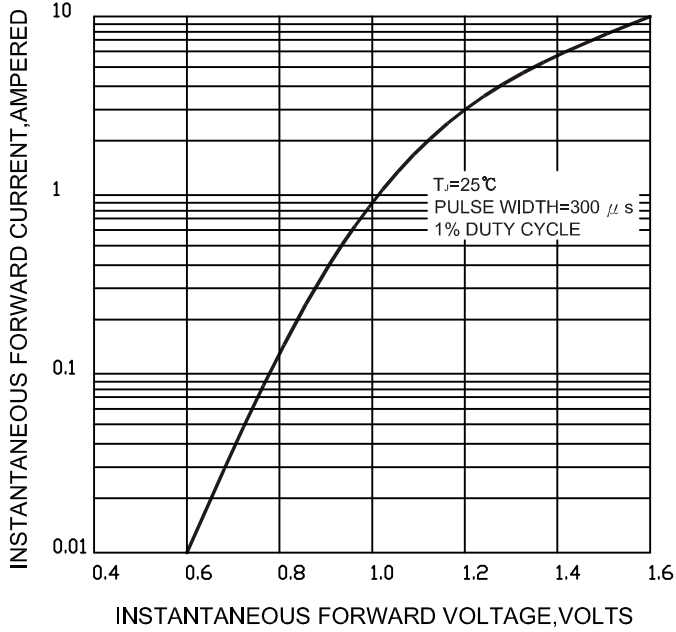


FIG.4-TYPICAL REVERSE CHARACTERISTICS

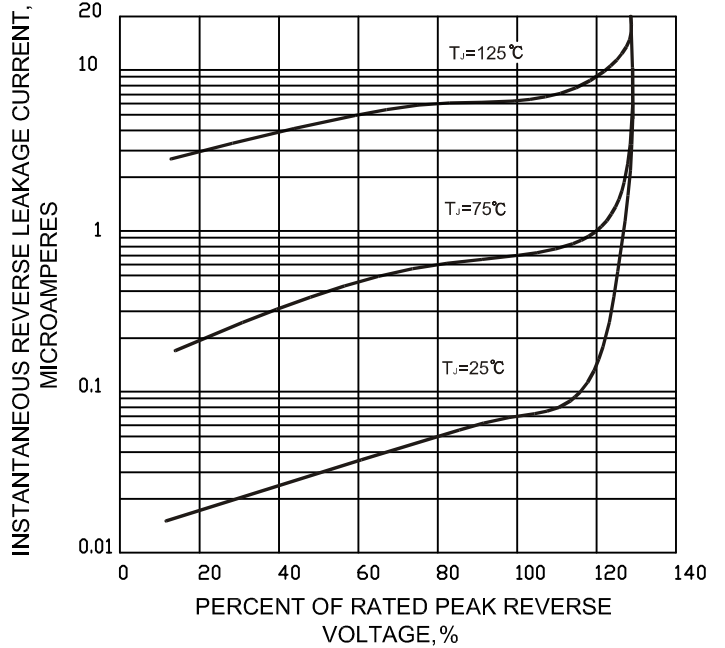


FIG.5-TYPICAL JUNCTION CAPACITANCE

