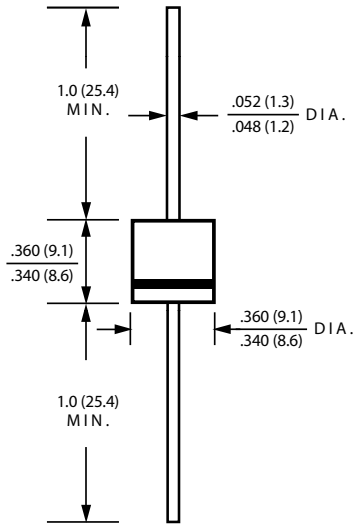




FR801G thru FR807G



Fast Recovery Rectifiers Glass Passivation Junction



R-6

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Remark
FR80xG	General
FR80xG-H	Halogen Free
FR80xG-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	8A
V_{RRM}	50~1000V
I_{FSM}	125A
V_F	1.3 V
$T_J \text{ max}$	150°C

Features

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Fast switching speed
- AEC-Q101 qualified

Mechanical Data

- Cases: R-6
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 2.047 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)									
PARAMETER	SYMBOL	FR801G	FR802G	FR803G	FR804G	FR805G	FR806G	FR807G	UNIT
Maximum repetitive 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 DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I_F	8.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125.0							A
Maximum Instantaneous Forward Voltage IF=8A @ 25°C	V_F	1.3							V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	10 100							uA
Maximum Reverse Recovery Time(NOTE2)	t_{rr}	150			250		500		ns
Typical Junction Capacitance(NOTE1)	C_j	100							pF
Typical Thermal Resistance	$R_{\theta JA}$	70							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

2.Measured with IF=0.5A,IR=1A,IRR=0.25A



Fast Recovery Rectifiers Glass Passivation Junction

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

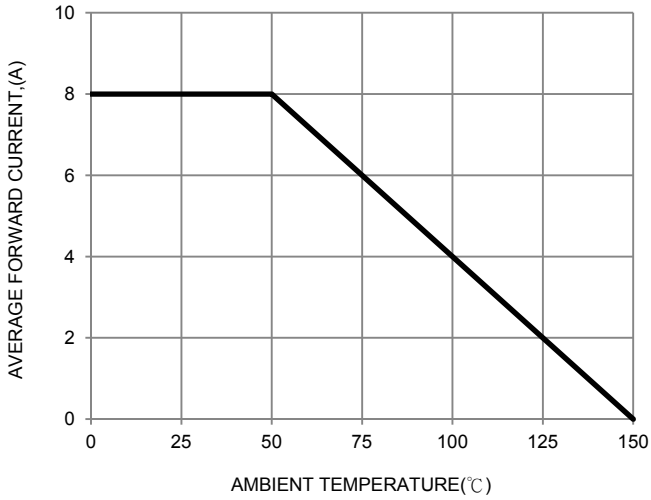


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

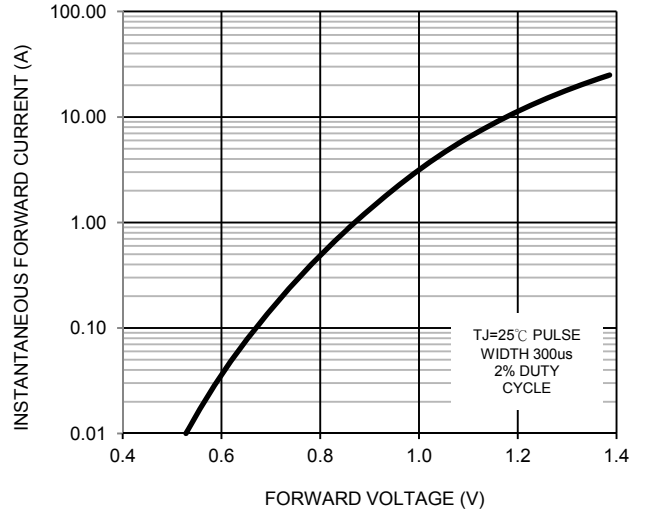


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

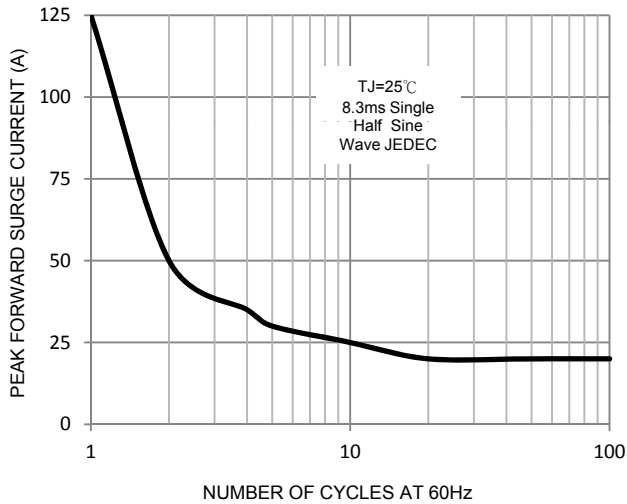


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

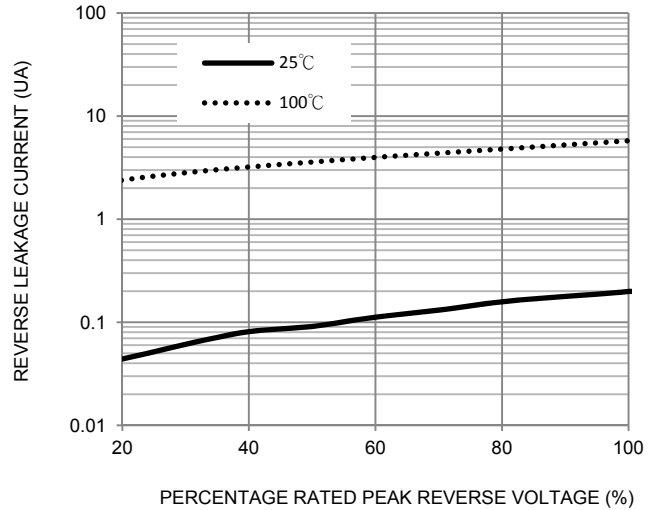


FIG. 5-TYPICAL JUNCTION CAPACITANCE

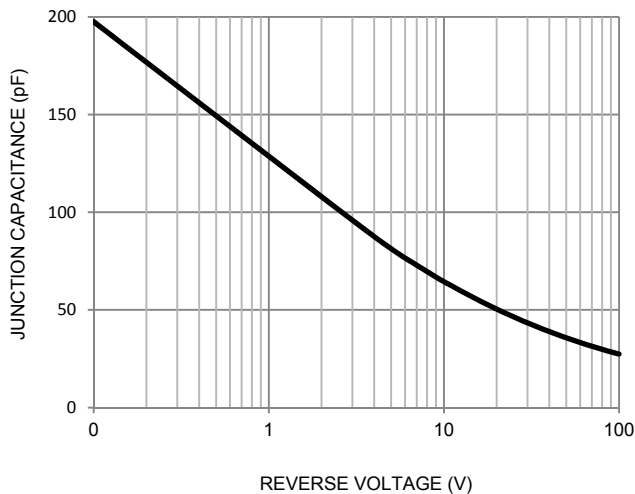


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

