



GF1650MG

**16 AMPS. SCHOTTKY BARRIER
RECTIFIER**

**Voltage Range
45 Volts
Current
16.0 Amperes**

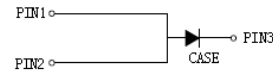
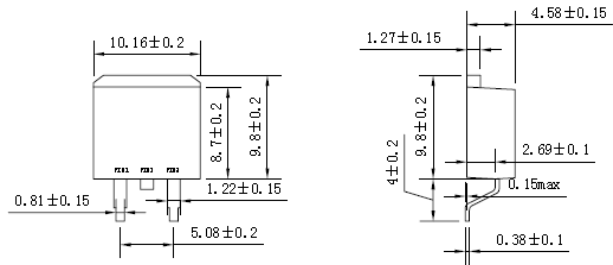
T0-263

Features

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

Mechanical Data

- Cases: TO-263 molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 260°C/10 seconds/ .25", (6.35mm) from case
- Weight: 1.70 grams



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics

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

Type Number		GF1650MG	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	V
Maximum RMS Voltage	V _{RMS}	35	V
Maximum DC Blocking Voltage	V _{DC}	50	V
Maximum Average Forward Rectified Current See Fig. 1	I <sub(av)< sub=""></sub(av)<>	16.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	450	A
Peak Repetitive Reverse Surge Current (Note 1)	I _{RRM}	1.0	A
Maximum Instantaneous Forward Voltage at (Note 2) I _F =16A, T _c =25°C	V _F	0.65	V
Maximum Instantaneous Reverse Current @ T _j =25°C at Rated DC Blocking Voltage (Note 2)	I _R	0.5	mA
@ T _j =125°C		50	mA
Typical Junction Capacitance (Note 3)	C _j	450	pF
Maximum Thermal Resistance, Junction to Case	R _{θJC}	1.0	°C/W
Junction temperature Range	T _J	-50 to +150	°C
At reduced reverse voltage VR ≤ 80% V _{RRM}		≤ 175	
In DC forward roode VR ≤ 50% V _{RRM}		≤ 200	
Storage Temperature Range	T _{STG}	-55 to +150	°C

- NOTES:**
1. 2.0us Pulse Width, f=1.0 KHz
 2. Pulse Test: 300us Pulse Width, 1% Duty Cycle
 3. Mounted on Heatsink Size of 2 in x 3 in x 0.25in Al-Plate.

RATING AND CHARACTERISTIC CURVES GF1650MG



FIG. 1-FORWARD CURRENT DERATING CURVE

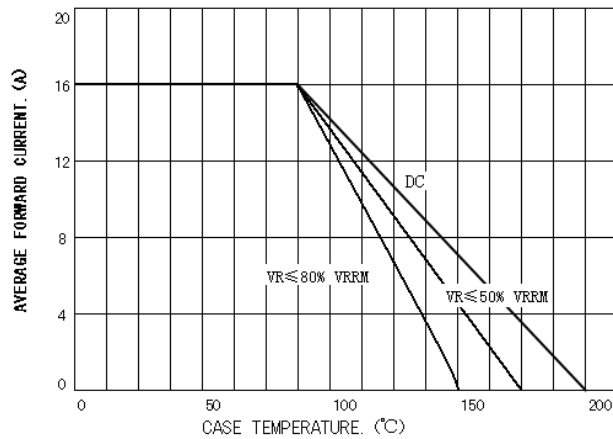


FIG. 2-MAXIMUM NON-REPETITIVE

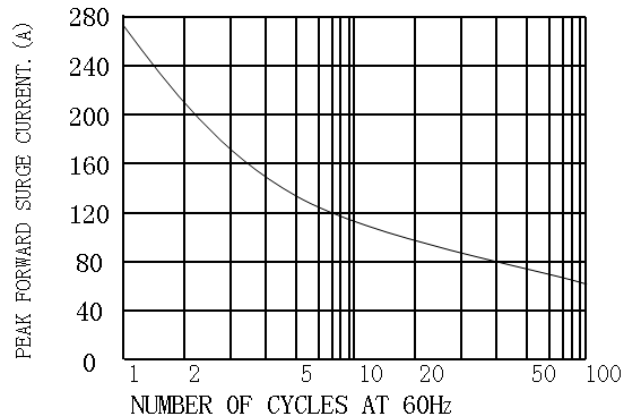


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

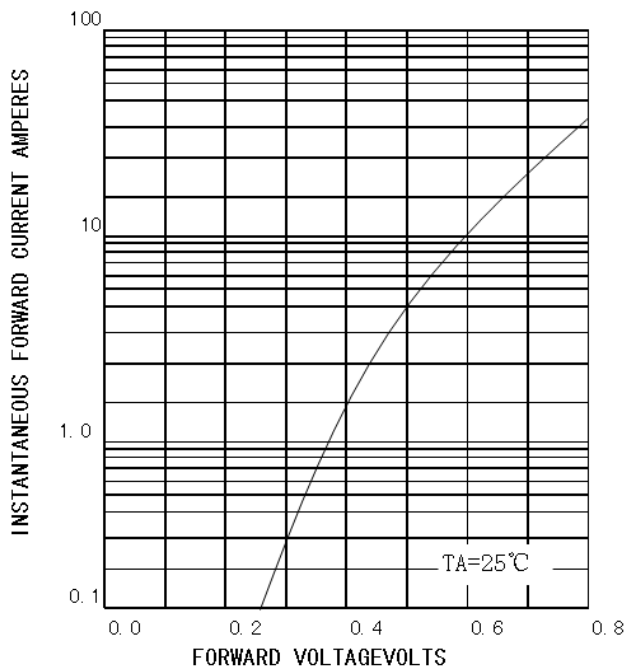


FIG. 4-TYPICAL REVERSE CHARACTERISTIC

