



GF1645LA

**16 AMPS. SCHOTTKY BARRIER
RECTIFIER**

**Voltage Range
45 Volts
Current
16.0 Amperes**

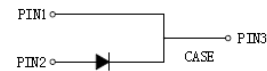
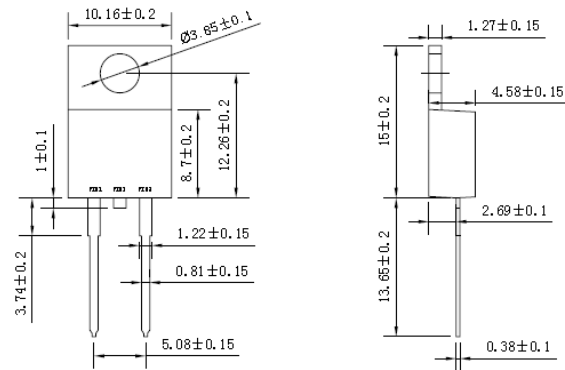
TO-220AC

Features

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

Mechanical Data

- Cases: TO-220AC 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: 2.24 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		GF1645LA	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	16.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	275	A
Peak Repetitive Reverse Surge Current (Note 1)	I_{RRM}	1.0	A
Maximum Instantaneous Forward Voltage at (Note 2) $I_F=16A$, $T_c=25^\circ C$	V_F	0.65	V
Maximum Instantaneous Reverse Current @ $T_j=25^\circ C$ at Rated DC Blocking Voltage (Note 2)	I_R	0.5	mA
		50	mA
Typical Junction Capacitance (Note 3)	C_j	450	pF
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.5	°C/W
Operating Junction Temperature Range In DC forward mode	T_J	-55 to +150 -55 to +200	°C
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 GF1645LA



FIG. 1-FORWARD CURRENT DERATING CURVE

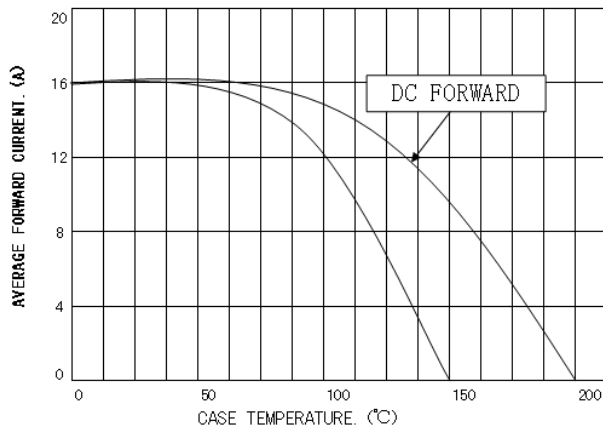


FIG. 2-MAXIMUM NON-REPETITIVE

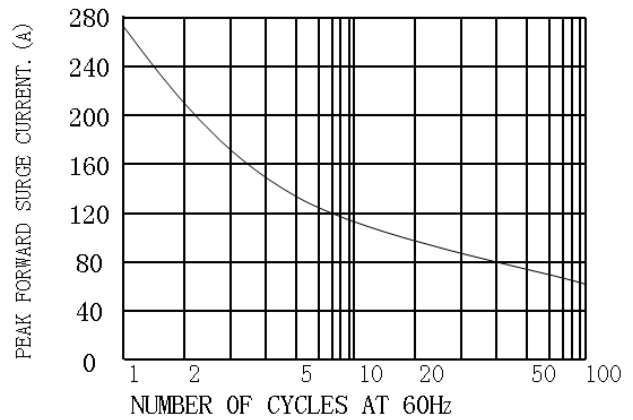


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

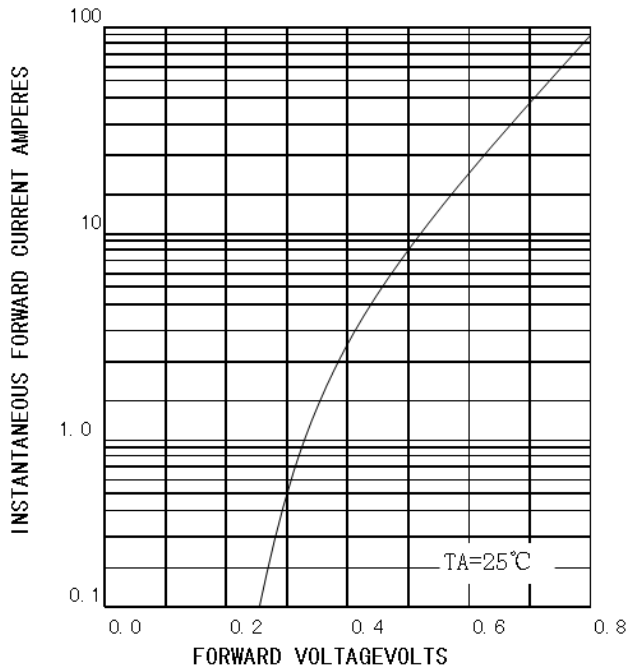


FIG. 4-TYPICAL REVERSE CHARACTERISTIC

