

SUPER FAST RECTIFIERS

Reverse Voltage: 50 - 600V
Forward Current: 10A

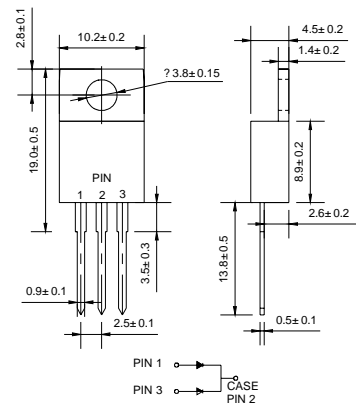
FEATURES

- Low switching losses, high efficiency
- Low forward voltage drop
- Ultrafast recovery times
- Solder Dip 260°C, 10 seconds
- The plastic material carries U/L recognition 94V-0
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- **Case:** JEDEC TO-220AB, molded plastic over
- **Terminals:** Matte tin plated leads
- **Polarity:** As marked
- **Weight:** 0.071 ounce, 2.006 gram
- **Mounting Position:** Any

TO-220AB



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbol	GF10 05C	GF10 10C	GF10 20C	GF10 30C	GF10 40C	GF10 50C	GF10 60C	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	V
Maximum average forward rectified current @ $T_C=95^\circ\text{C}$ (Note 1)	$I_{(AV)}$	10							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	80							A
Maximum instantaneous forward voltage at 5.0A (Note 2)	V_F	0.98		1.3		1.7		V	
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 150							μA
Maximum reverse recovery time (Note 3)	t_{rr}	30							ns
Operating junction temperature range	T_J	-55---+150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55---+150							$^\circ\text{C}$

NOTES: 1. Averaged over any 20ms period.

2. Pulse test: 300 μs pulse width, 1% duty cycle.

3. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

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FIG.1 TYPICAL FORWARD CHARACTERISTICS

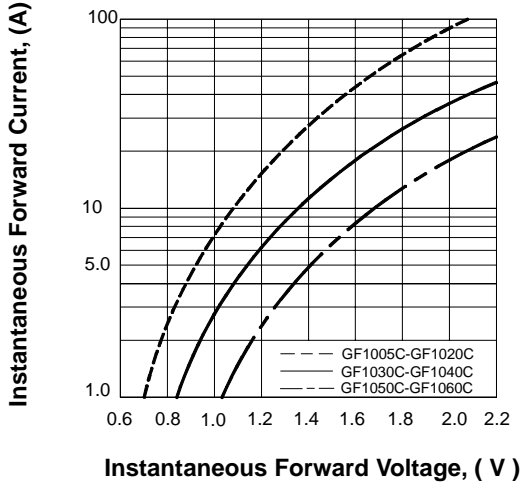


FIG.2 FORWARD DERATING CURVE

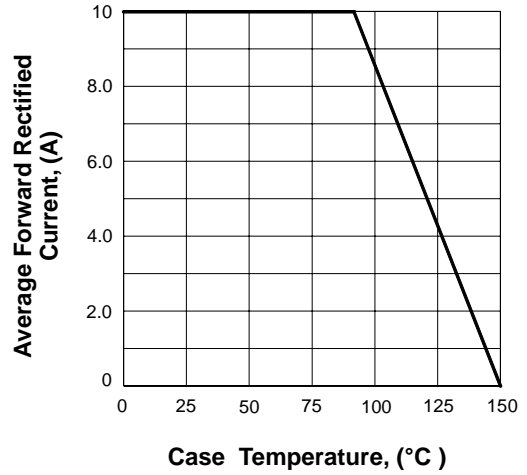


FIG.3 TYPICAL REVERSE CHARACTERISTICS

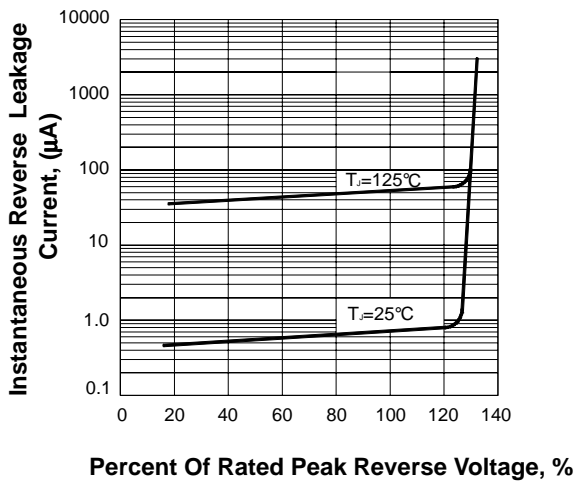


FIG.4 PEAK FORWARD SURGE CURRENT

