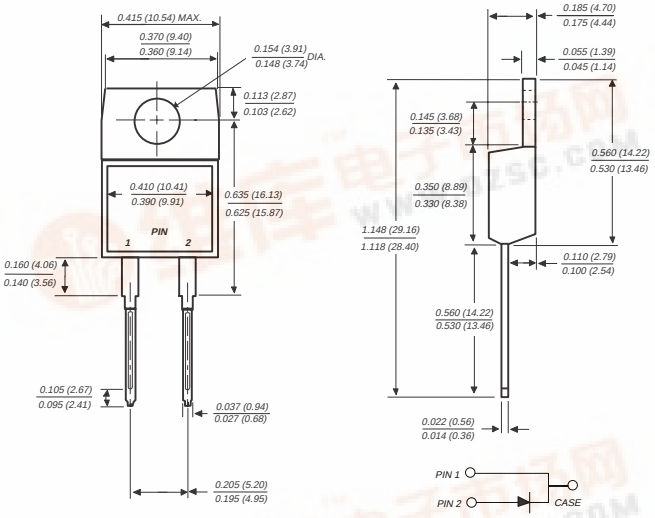
GI1401 THRU GI1404

FAST EFFICIENT PLASTIC RECTIFIER

***Reverse Voltage** - 50 to 200 Volts* ***Forward Current** - 8.0 Amperes*

TO-220AC



Dimensions in inches and (millimeters)

FEATURES

- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ Glass passivated chip junction
- ♦ Low power loss
- ♦ Low leakage current
- ♦ High surge capability
- ♦ Superfast recovery time for high efficiency
- ♦ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds

MECHANICAL DATA

Case: JEDEC TO-220AC molded plastic body over passivated chip
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*GI1401*	*GI1402*	*GI1403*	*GI1404*	*UNITS*
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	Volts
Maximum average forward rectified current at T_C=125°C	$I_{(AV)}$	8.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T_C=125°C	I_{FSM}	125.0				Amps
Maximum instantaneous forward voltage at: I_F=4A, T_J=100°C I_F=8A, T_J=100°C I_F=4A, T_J=25°C I_F=8A, T_J=25°C	V_F	0.800 0.895 0.900 0.975				Volts
Maximum DC reverse current at rated DC blocking voltage T_C=25°C T_C=100°C	I_R	5.0 150.0				µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35.0				ns
Typical junction capacitance (NOTE 2)	C_J	85.0				pF
Typical thermal resistance (NOTE 3) (NOTE 4)	$R_{\Theta JA}$ $R_{\Theta JC}$	15.0 2.2				°C/W
Operating and storage temperature range	T_J, T_{STG}	-65 to +150				°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Measured at 1.0 MH_Z and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient in free air, no heatsink
(4) Thermal resistance from junction to case mounted on heatsink

GENERAL

RATINGS AND CHARACTERISTIC CURVES GI1401 THRU GI1404

FIG. 1 - FORWARD CURRENT DERATING CURVES

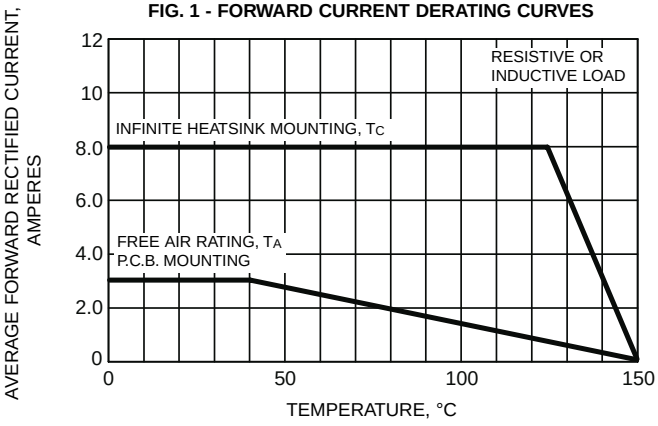


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

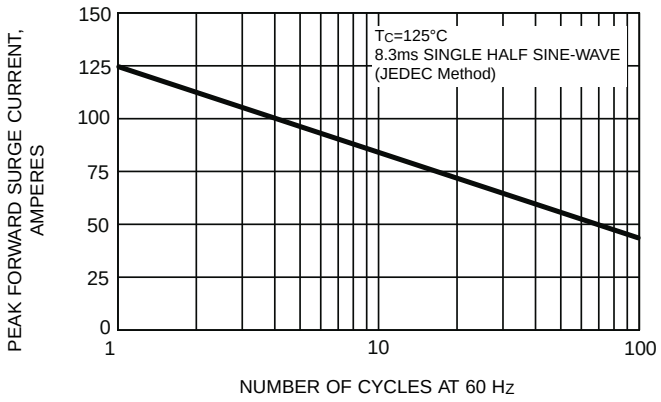


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

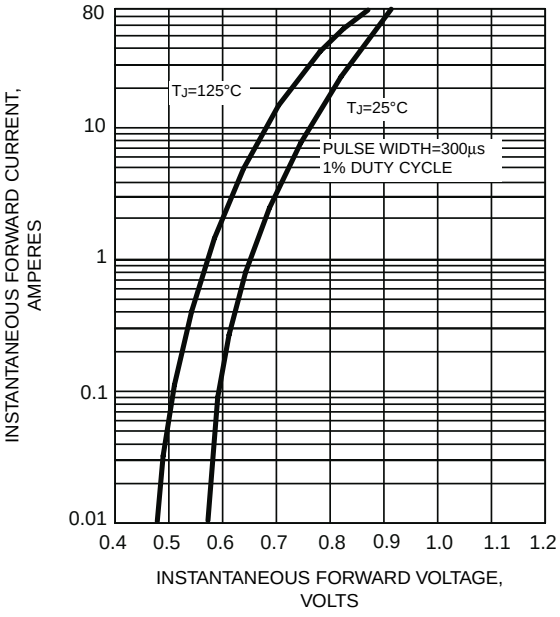


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

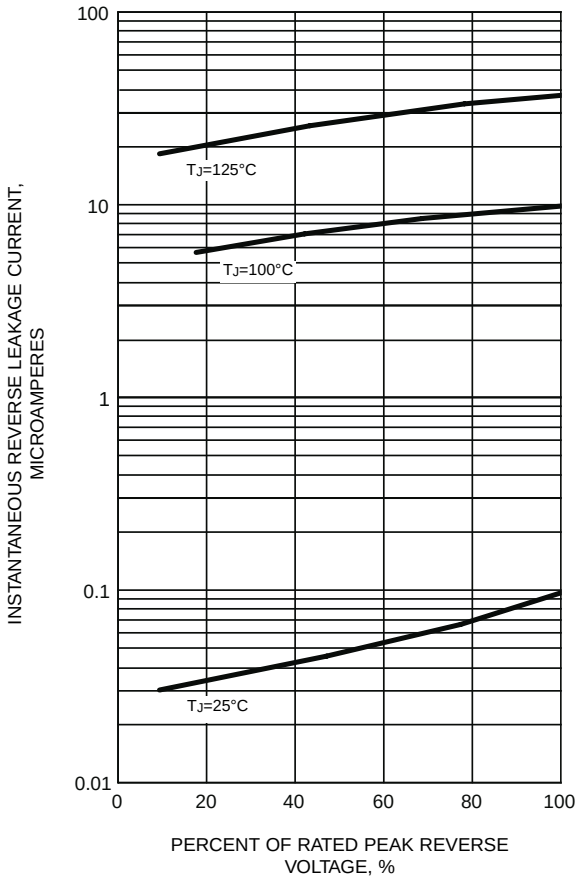


FIG. 5 - TYPICAL JUNCTION CAPACITANCE