TAYCHIPST

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

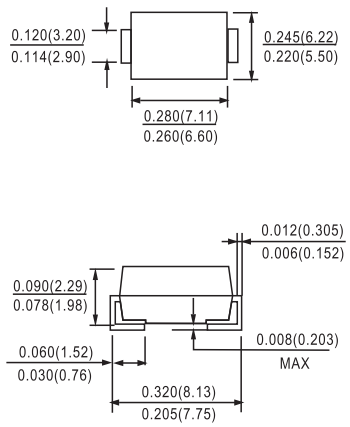
GF1A THRU GF1M

50V-1000V 1.0A

FEATURES

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for surface mount automotive applications
- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- High temperature soldering guaranteed: 450°C/5 seconds
- at terminals
- Complete device submersible temperature of 265°C for
- 10 seconds in solder bath

DO-214AB(SMC)



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214BA molded plastic over glass body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.0048 ounces, 0.120 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GF1A	GF1B	GF1D	GF1G	GF1J	GF1K	GF1M	UNITS
Device marking code		GA	GB	GD	GG	GJ	GK	GM	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T_L=125°C	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.10					1.20		Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=125°C	I_R	5.0 50.0							µA
Typical reverse recovery time (NOTE 1)	trr	2.0							µs
Typical junction capacitance (NOTE 2)	C_J	15.0							pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$ $R_{\Theta JL}$	80.0 26.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Measured at 1.0 MHz and applied V_R=4.0 Volts
(3) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES GF1A THRU GF1M

FIG. 1 - FORWARD CURRENT DERATING CURVE

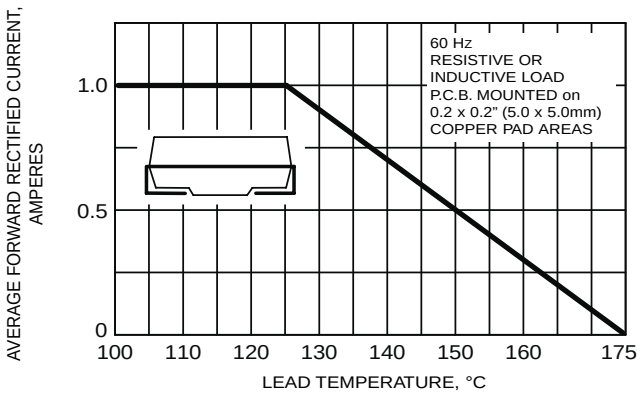


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

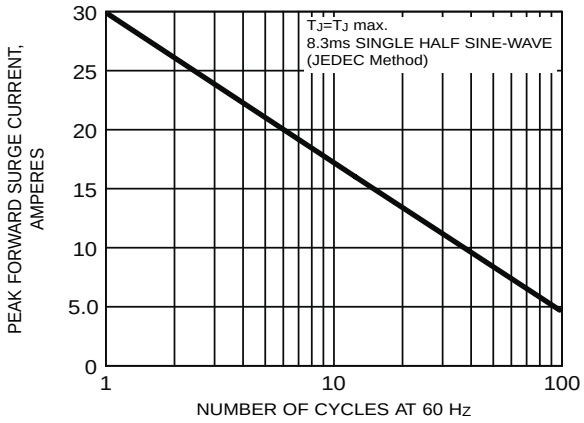


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

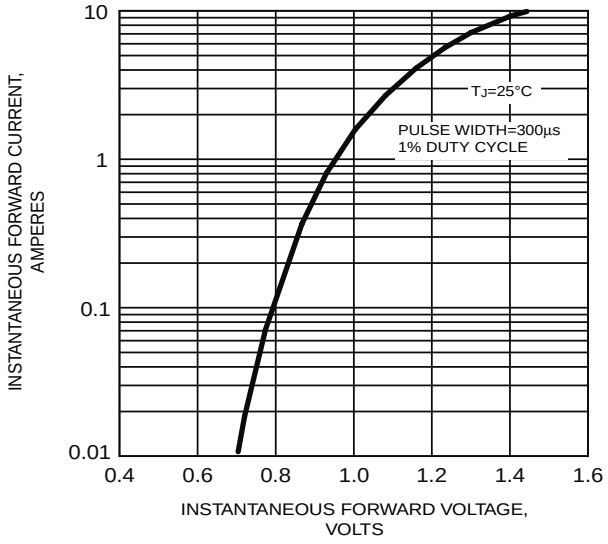


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

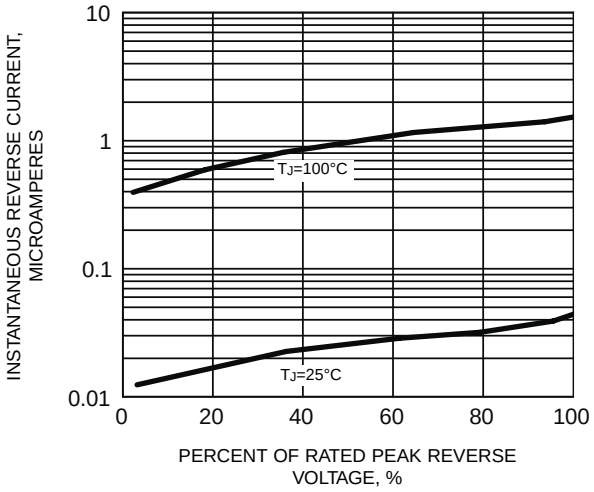


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

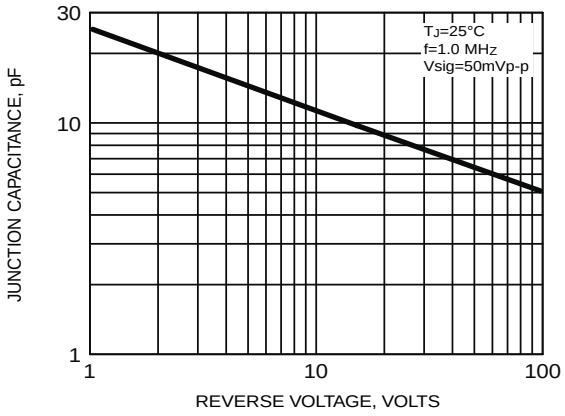


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

