



TAYCHIPST

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

GF1A THRU GF1M

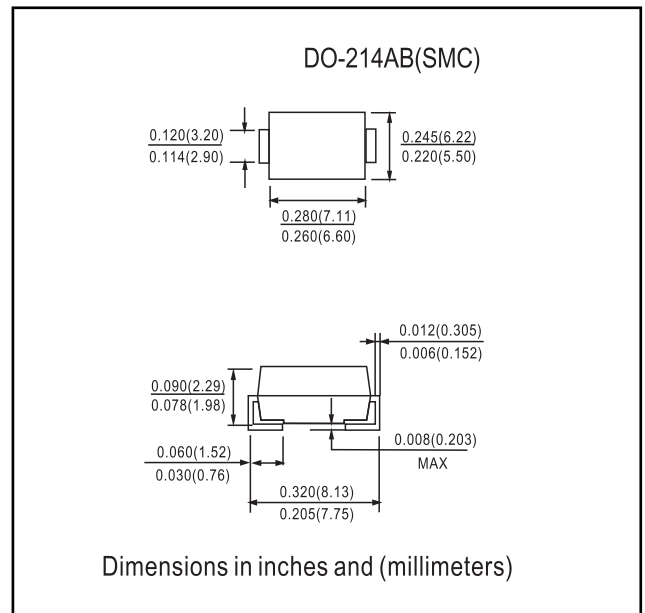
50V-1000V 1.0A

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

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)	t _{rr}					2.0			μs	
Typical junction capacitance (NOTE 2)	C _J					15.0			pF	
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJL}					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

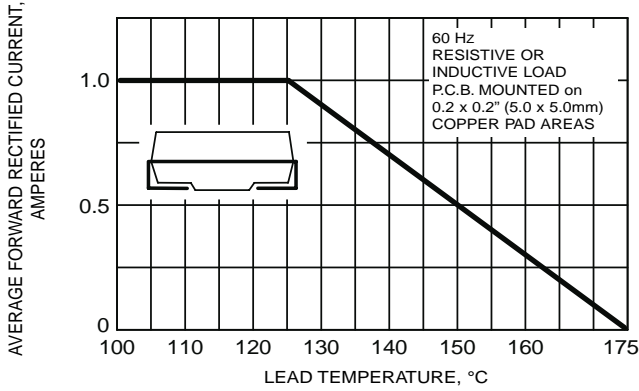


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

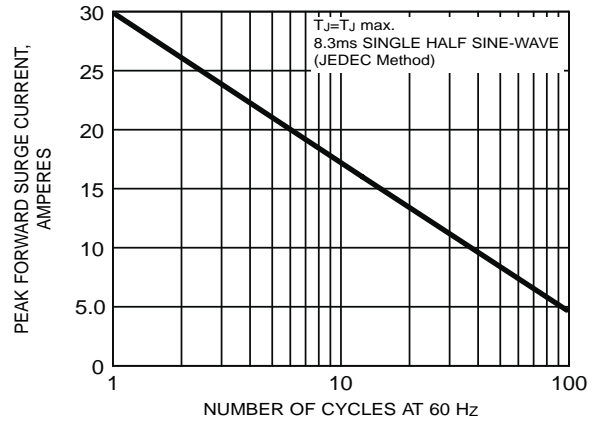


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

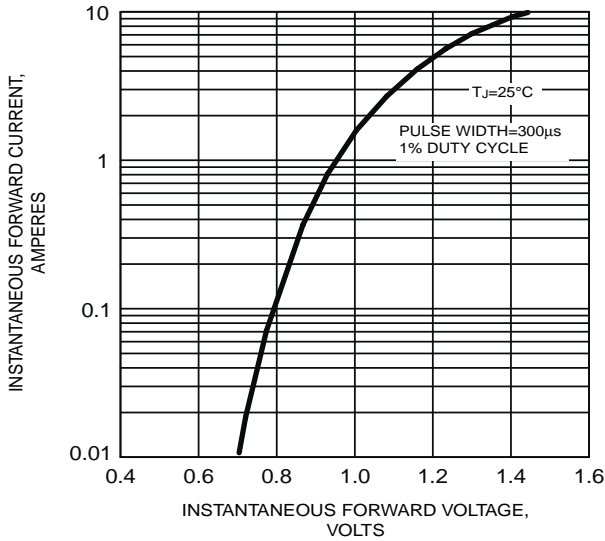


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

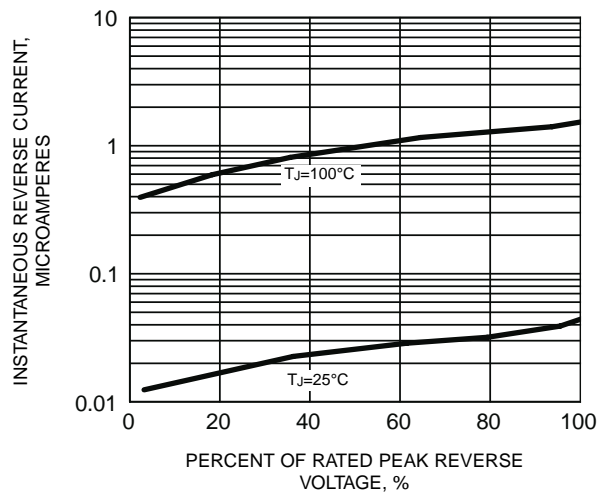


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

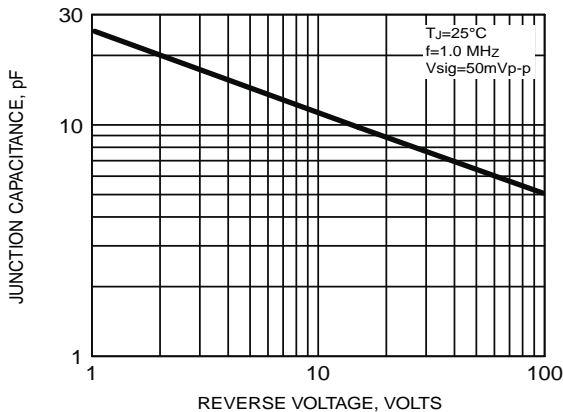


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

