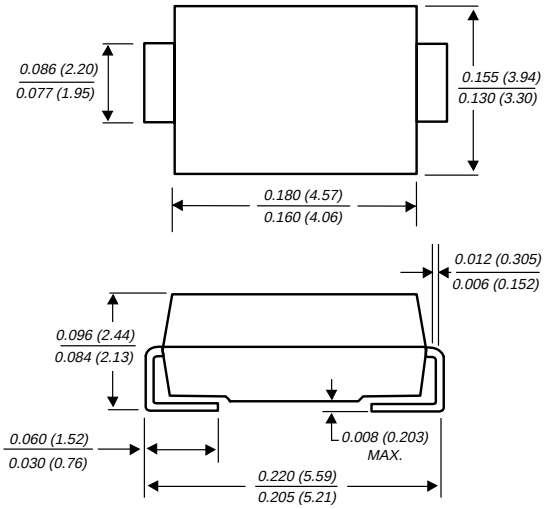
S2A THRU S2M

SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

Reverse Voltage - *50 to 1000 Volts* ***Forward Current -*** *1.5 Amperes*

DO-214AA
MODIFIED J-BEND



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- High temperature soldering: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic body over passivated chip

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Device marking code		SA	SB	SD	SG	SJ	SK	SM	
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=100°C	$I_{(AV)}$	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_L=100°C	I_{FSM}	50.0							Amps
Maximum instantaneous forward voltage at 1.5 A	V_F	1.15							Volts
Maximum DC reverse current at Rated DC blocking voltage T_A=25°C T_A=125°C	I_R	1.0 125.0							µA
Typical reverse recovery time (NOTE 1)	t_{rr}	2.0							µs
Typical junction capacitance (NOTE 2)	C_J	30.0							pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$ $R_{\Theta JL}$	53.0 16.0							°C/W
Operating and storage temperature range	T_J, T_{STG}	-55 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 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27 x 0.27" (7.0 x 7.0mm) copper pad areas

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES S2A THRU S2M

FIG. 1 - FORWARD CURRENT DERATING CURVE

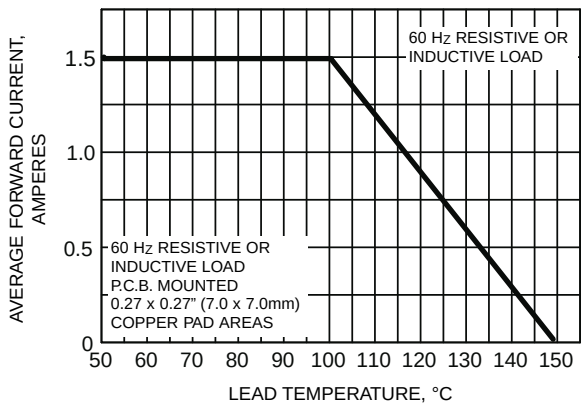


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

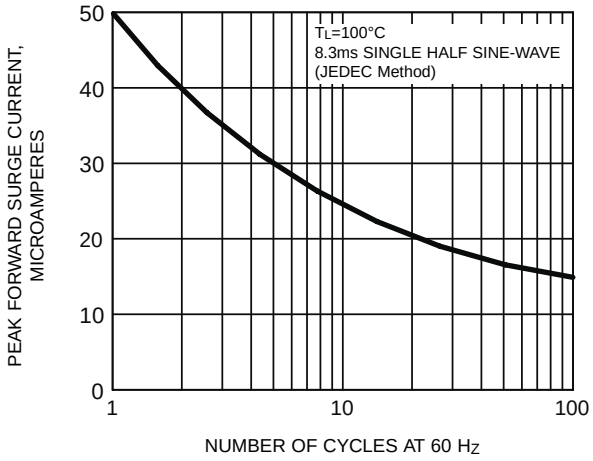


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

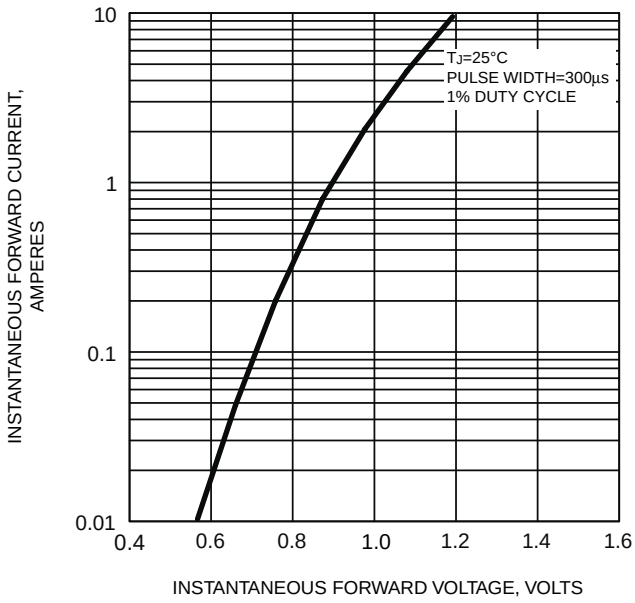


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

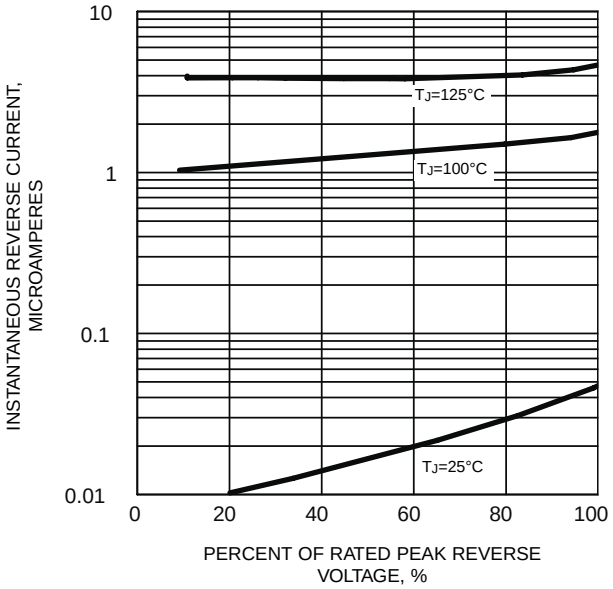
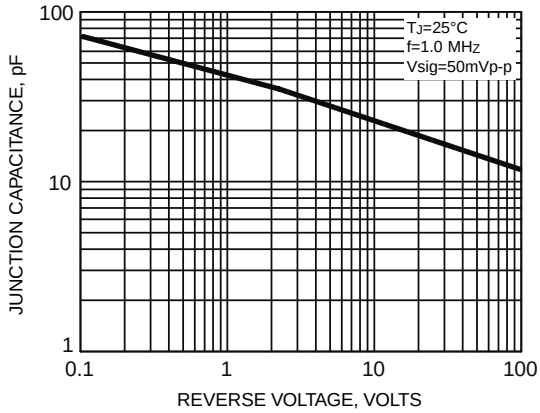


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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