

S2A THRU S2M

SURFACE MOUNT GENERAL RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 2.0 Amperes

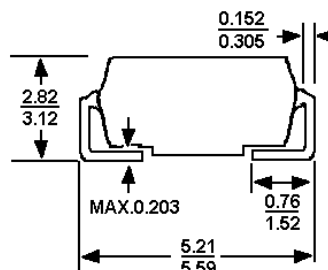
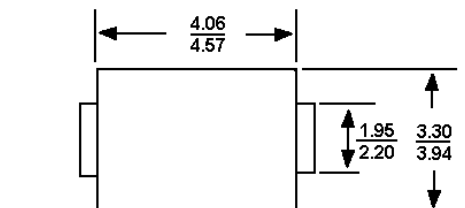
Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High forward surge current capability
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed:
250/10sec at terminals

Mechanical Data

- Case: JEDEC DO-214AA, molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

SMB/DO214AA



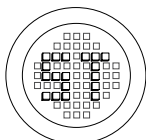
Dimensions in mm

Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

	Symbols	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_L = 110^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Maximum Instantaneous forward voltage at 2.0A	V_F	1.1							V
Maximum DC reverse current at $T_A = 25^\circ\text{C}$	I_R	5.0							μA
at rated DC blocking voltage at $T_A = 100^\circ\text{C}$	I_R	50							
Typical Junction Capacitance at $V_R = 4.0\text{V}$, $f = 1\text{MHz}$	C_{tot}	30							pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_S	-65 to +175							$^\circ\text{C}$

Notes: 1. P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm²) copper pad areas



®

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FIG.1-FORWARD DERATING CURVE

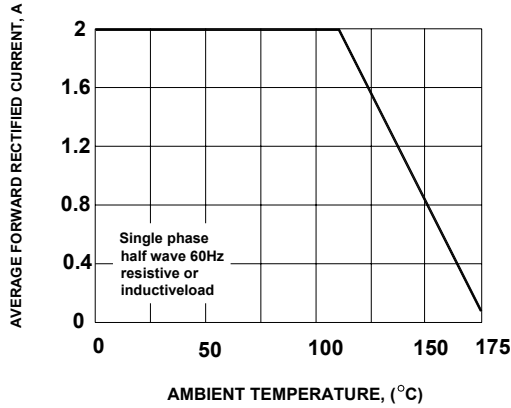


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

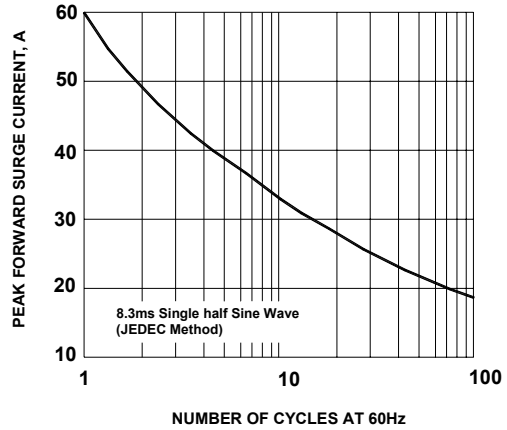


FIG.3-TYPICAL FORWARD CHARACTERISTICS

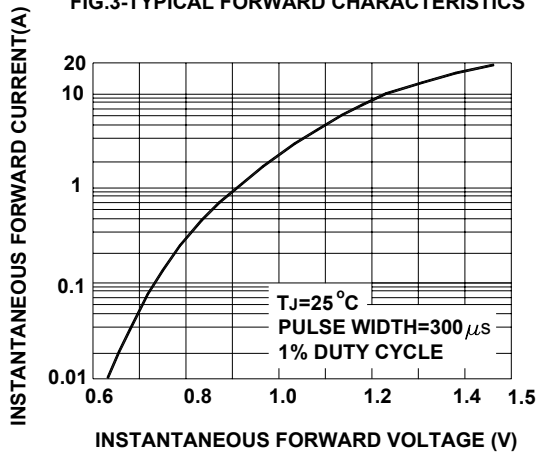


FIG.4-TYPICAL REVERSE CHARACTERISTICS

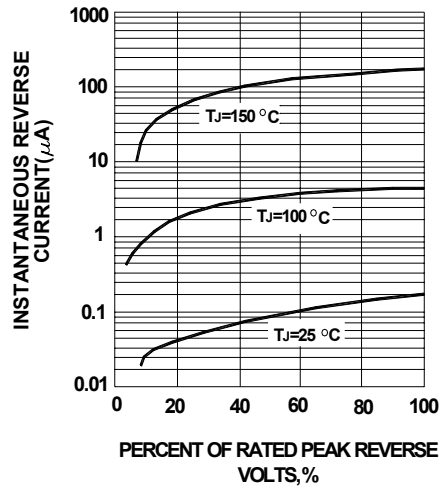


Fig.5 - TYPICAL JUNCTION CAPACITANCE

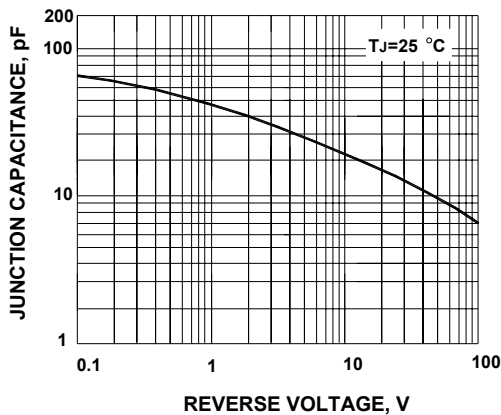
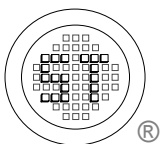
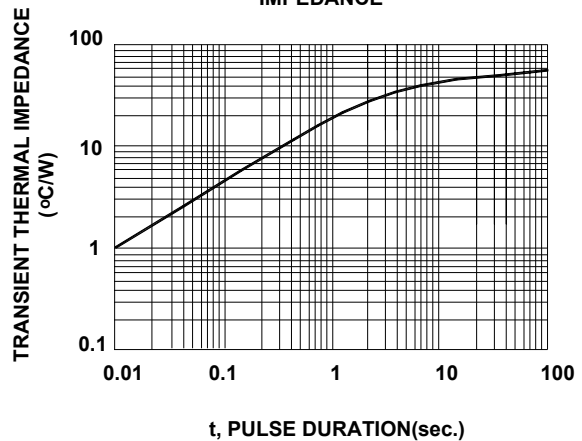
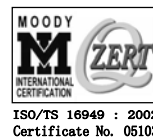


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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Dated : 04/07/2003