

S2A THRU S2M

SURFACE MOUNT GENERAL RECTIFIERS

Reverse Voltage - 50 to 1000 V

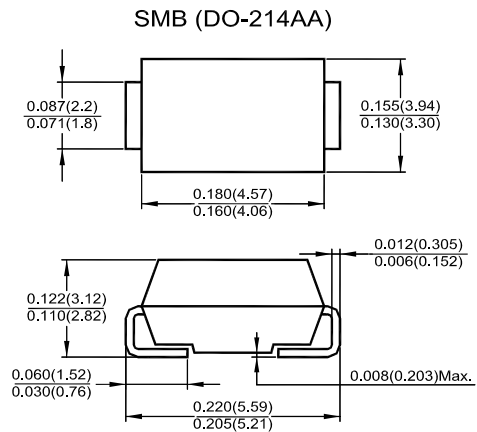
Forward Current - 2 A

Features

- The plastic package carries UL flammability classification 94V-0
- High forward surge current capability
- Low reverse current

Mechanical Data

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



Dimensions in inches and (millimeters)

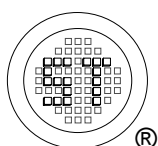
Maximum Ratings and Characteristics

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

Parameter	Symbols	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Units
Maximum Repetitive 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 Current at $T_L = 110^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60							A
Maximum Forward Voltage at $I_F = 2\text{ A}$	V_F	1.1							V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$	I_R	5 50							μA
Typical Junction Capacitance ¹⁾	C_J	30							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{stg}	- 65 to + 175							$^\circ\text{C}$

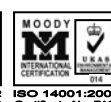
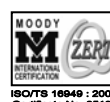
¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

²⁾ P.C.B mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas



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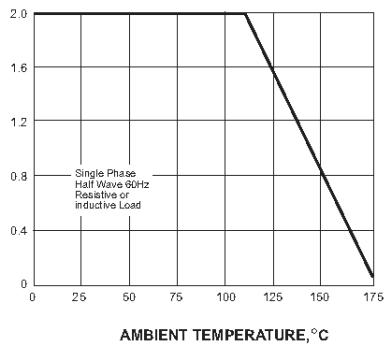
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Dated : 07/11/2008 C

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

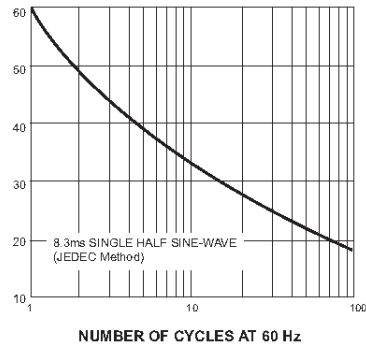
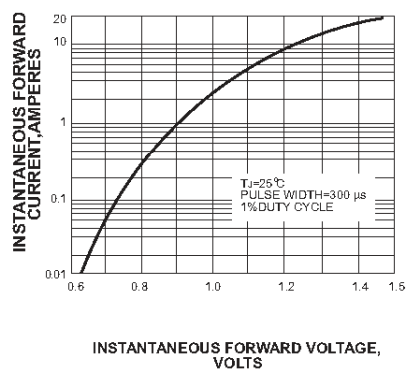


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

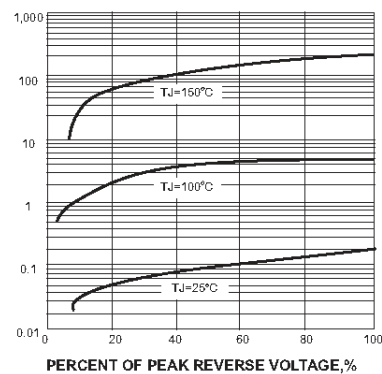
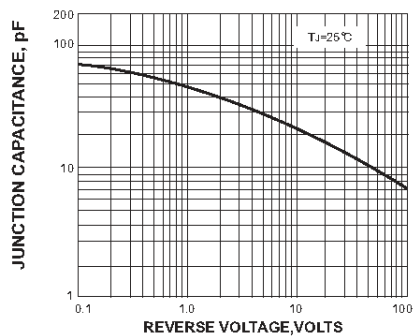
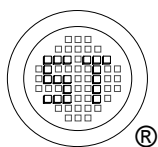
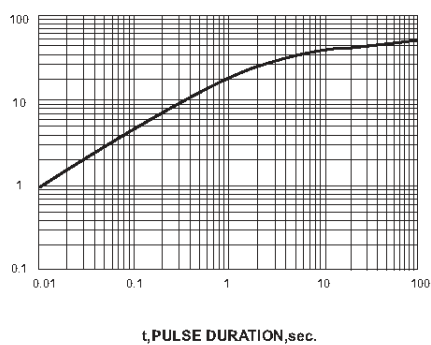


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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