

# S2AA THRU S2MA

## Surface Mount General Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 2 A

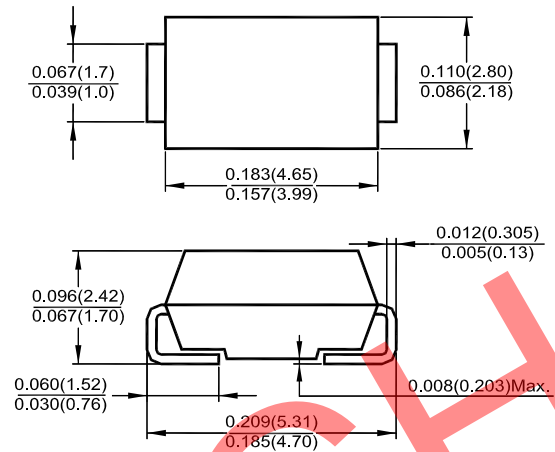
### Features

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

### Mechanical Data

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

SMA (DO-214AC)



Dimensions in inches and (millimeters)

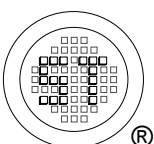
### Maximum Ratings and Characteristics

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%.

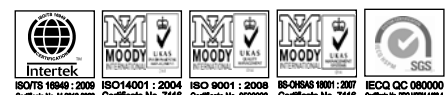
Parameter	Symbols	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at $T_L = 110^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	70							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							$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	30							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 175							$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

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



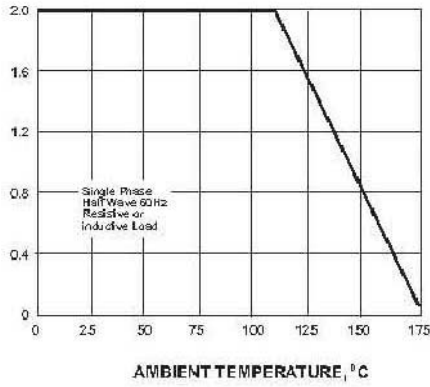
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# S2AA THRU S2MA

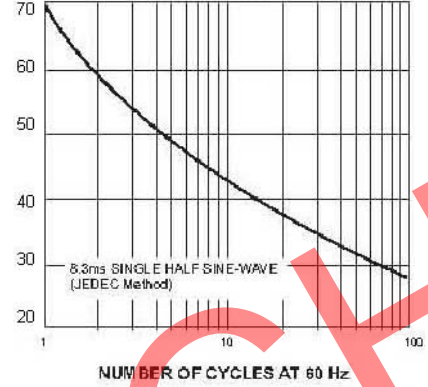
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



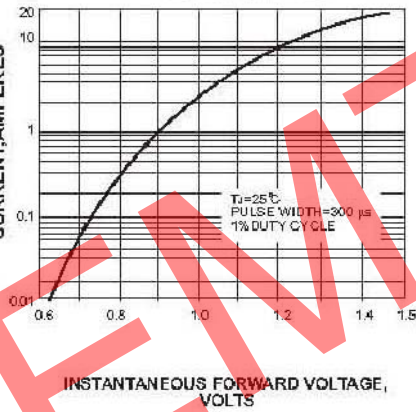
PEAK FORWARD SURGE CURRENT, AMPERES

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



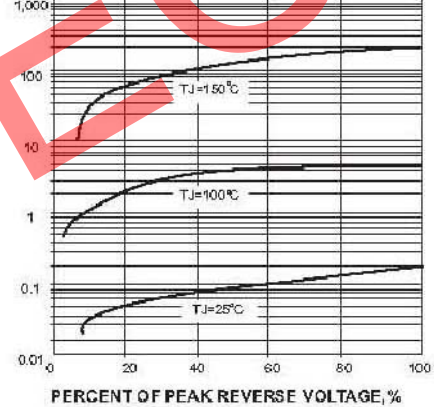
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



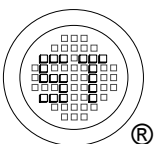
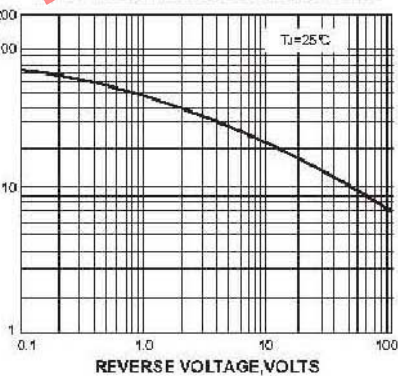
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



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