

# S2AS~ S2MS

# SURFACE MOUNT RECTIFIERS

**PRV : 50 - 1000 Volts**

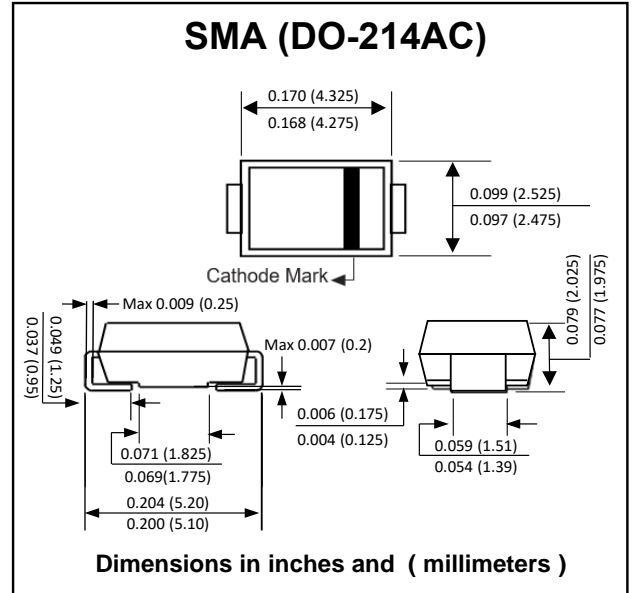
**Io : 2.0 Ampere**

**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : SMA Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.067 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

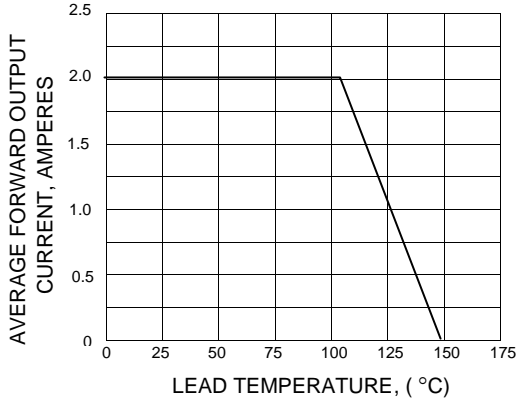
Rating at 25 °C ambient temperature unless otherwise specific.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	S2AS	S2BS	S2DS	S2GS	S2JS	S2KS	S2MS	UNIT
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 $T_L = 110\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method) $T_L = 100\text{ }^\circ\text{C}$	$I_{FSM}$	60							A
Maximum Instantaneous Forward Voltage at $I_F = 2.0\text{ A}$ .	$V_F$	1.1							V
Maximum DC Reverse Current at rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
	$I_{R(H)}$	200							$\mu\text{A}$
Typical thermal resistance	$R_{\theta JL}$	16							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 1)	$C_J$	30							pF
Junction Temperature Range	$T_J$	- 55 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150							$^\circ\text{C}$

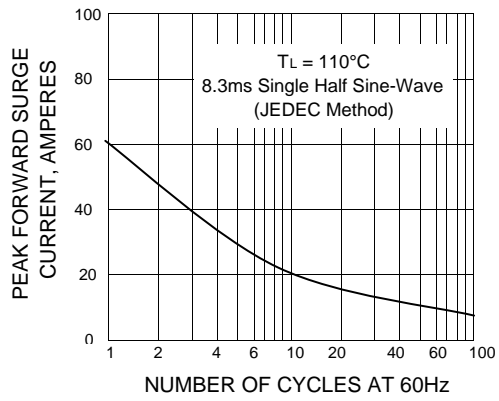
**Notes :**  
 (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

**RATING AND CHARACTERISTIC CURVES ( S2AS~ S2MS )**

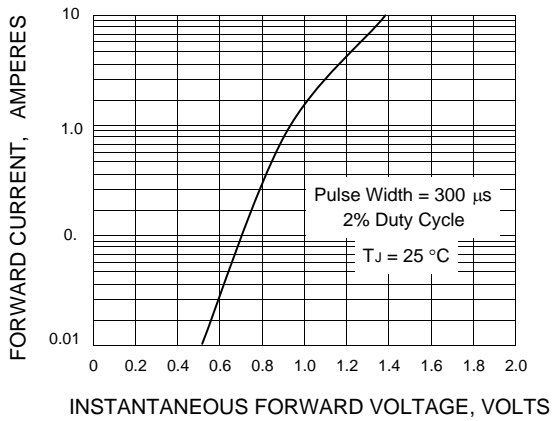
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



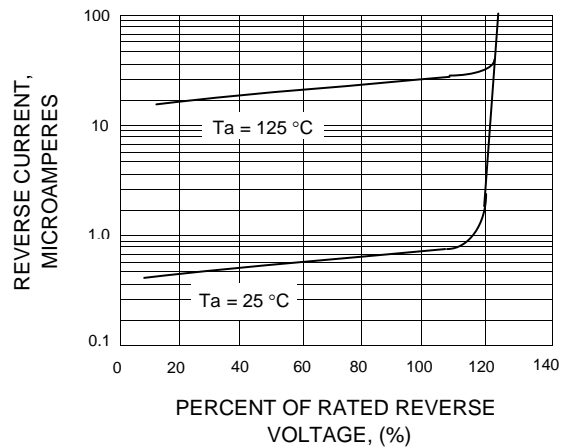
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 – TYPICAL JUNCTION CAPACITANCE**

