

S2AA THRU S2MA 1.5 AMPS. Surface Mount Rectifiers	Voltage Range 50 to 1000 Volts Current 1.5 Amperes
Features For surface mounted application Glass passivated junction chip. Low forward voltage drop High current capability Easy pick and place High surge current capability Plastic material used carries Underwriters Laboratory Classification 94V-O High temperature soldering: 260°C / 10 seconds at terminals Mechanical Data Case: Molded plastic Terminals: Solder plated Polarity: Indicated by cathode band Packaging: 12mm tape per EIA STD RS-481 Weight: 0.064 gram	<p style="text-align: center;">SMA/DO-214AC</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	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 @ $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage @ 1.5A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_R	5.0 125							uA uA
Typical Thermal Resistance (Note 3)	$R\theta_{JL}$ $R\theta_{JA}$	16 53							$^\circ\text{C/W}$
Maximum Reverse Recovery Time (Note 1)	T_{rr}	2.0							uS
Typical Junction Capacitance (Note 2)	C_j	30							pF
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

2. Measured at 1 MHz and Applied $V_R = 4.0$ Volts

3. Measured on P.C. Board with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (S2AA THRU S2MA)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

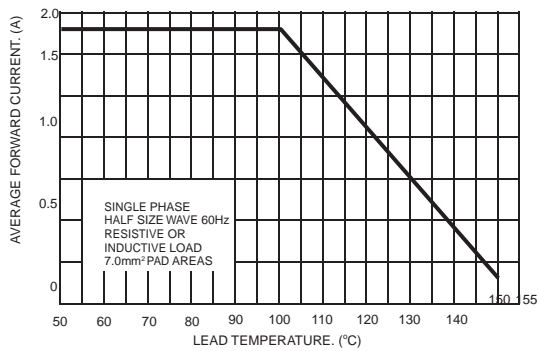


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

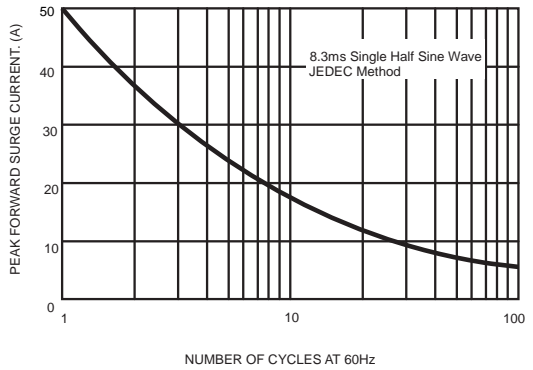


FIG.3- TYPICAL FORWARD CHARACTERISTICS

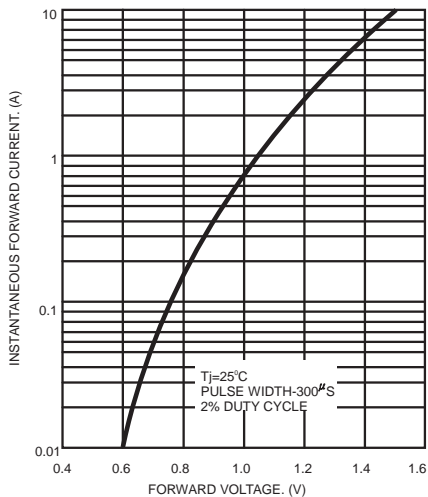


FIG.4- TYPICAL REVERSE CHARACTERISTICS

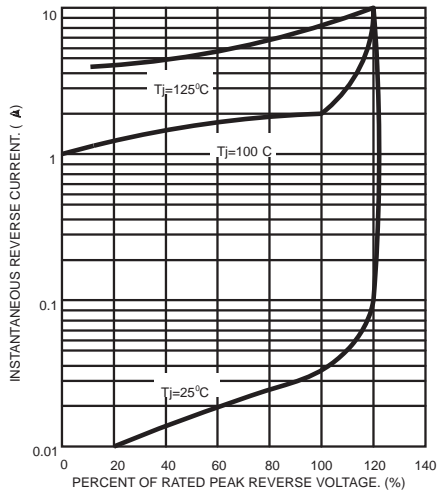


FIG.5- TYPICAL JUNCTION CAPACITANCE

