

S2AA - S2MA

1.5AMPS Surface Mount Rectifiers



FEATURES

- ✧ For surface mounted application
- ✧ Glass passivated chip junction
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easy pick and place
- ✧ High surge current capability



MECHANICAL DATA

- ✧ Case: Molded plastic
- ✧ Terminal: Pure tin plated, lead free
- ✧ Weight: 0.078 grams

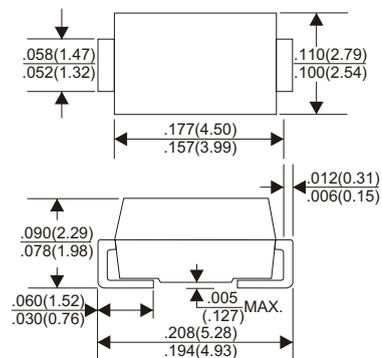
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.5 Ampere

DO-214AC



Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	S2 AA	S2 BA	S2 DA	S2 GA	S2 JA	S2 KA	S2 MA	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	$I_{F(AV)}$	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 (Note 1) @ 1.5A	V_F	1.1							V
Maximum DC Reverse Current at @ $T_A=25\text{ }^\circ\text{C}$	I_R	5							μA
Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$		125							μA
Typical Reverse Recovery Time (Note 2)	T_{rr}	1.5							μs
Typical Junction Capacitance (Note 3)	C_j	30							pF
Typical Thermal Resistance	$R_{\theta JL}$	16							$^\circ\text{C/W}$
	$R_{\theta JA}$	53							
Operating Temperature Range	T_J	- 55 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150							$^\circ\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied $V_R=4.0$ Volts

RATINGS AND CHARACTERISTIC CURVES (S2AA THRU S2MA)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

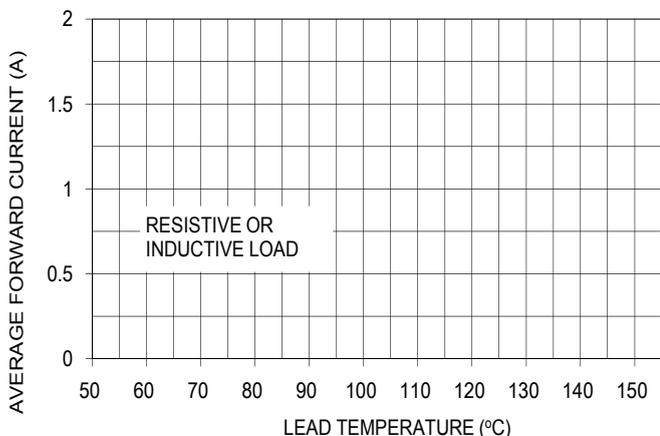


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

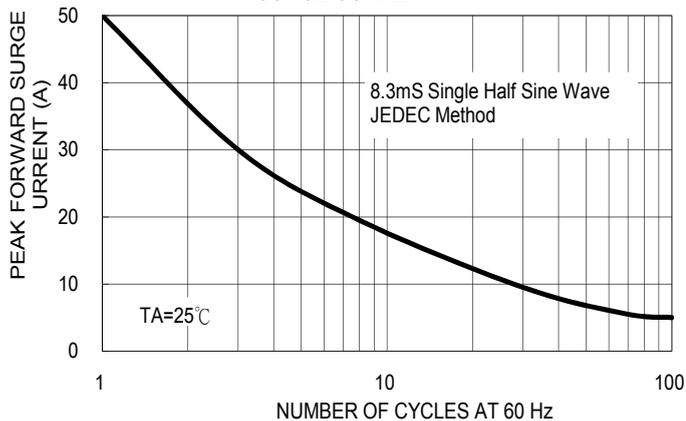


FIG. 4- TYPICAL JUNCTION CAPACITANCE

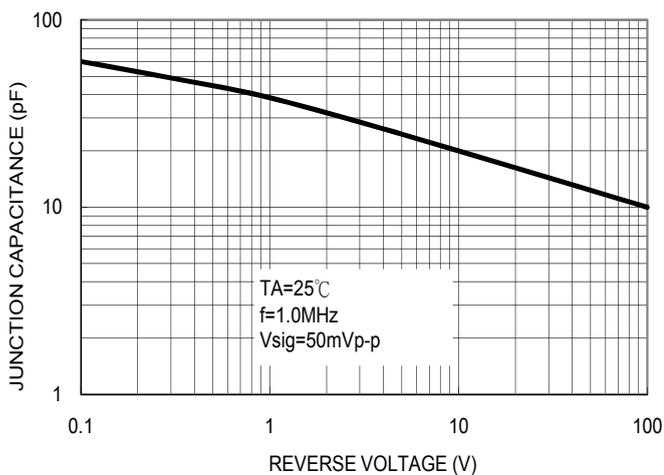


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

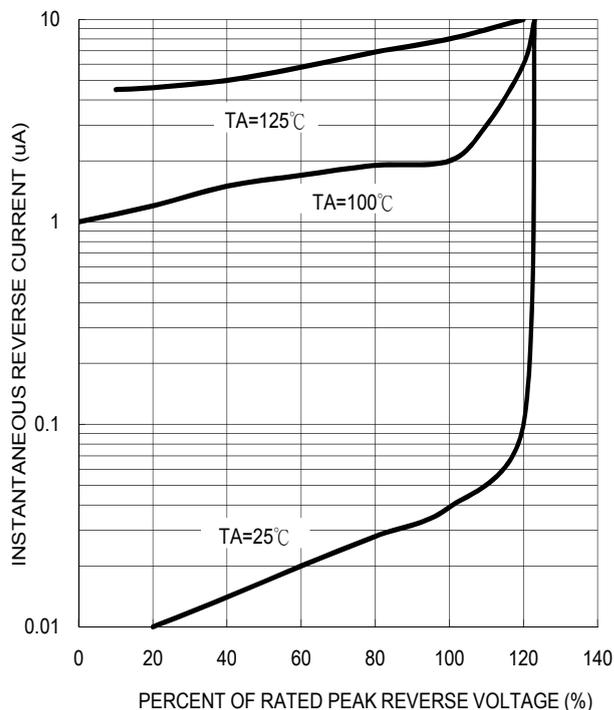


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

