



S2A THRU S2M

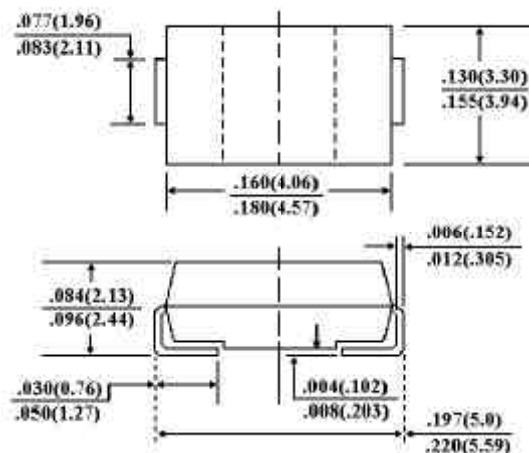
SURFACE MOUNT RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes

FEATURES

For surface mounted applications
High temperature metalurgically bonded-no
compression contacts as found in other
diode-constructed rectifiers
Glass passivated junction
Built-in strain relief
Easy pick and place
Plastic package has Underwriters Laboratory
Flammability Classification 94V-0
Complete device submersible temperature of
260 °C for 10 seconds in solder bath

SMB/DO-214AA



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic
Terminals: Solder plated, solderable per MIL-STD-750,
Method 2026
Polarity: Indicated by cathode band
Standard packaging: 12mm tape (EIA-481)
Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL 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%.

	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, at $T_L=110$ °C	I_{AV}	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load(JEDEC method)	I_{FSM}	60.0							Amps
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.10							Volts
Maximum DC Reverse Current $T_A=25$ °C	I_R	5.0							µA
At Rated DC Blocking Voltage $T_A=125$ °C		125							
Maximum Reverse Recovery Time (Note 1)	T_{RR}	2.5							µs
Typical Junction capacitance (Note 2)	C_J	30.0							pF
Typical Thermal Resistance (Note 3)	$R_{\theta KJL}$	16							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES:

- Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
- Measured at 1 MHz and Applied $V_r=4.0$ volts
- $8.0mm^2$ (.013mm thick) land areas

RATING AND CHARACTERISTIC CURVES
S2A THRU S2M

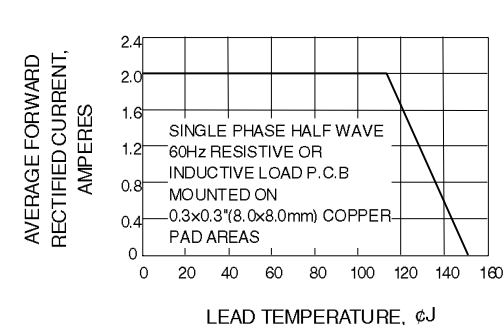


Fig. 1-FORWARD CURRENT DERATING CURVE

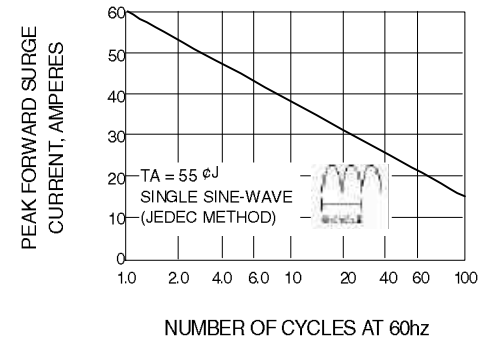


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

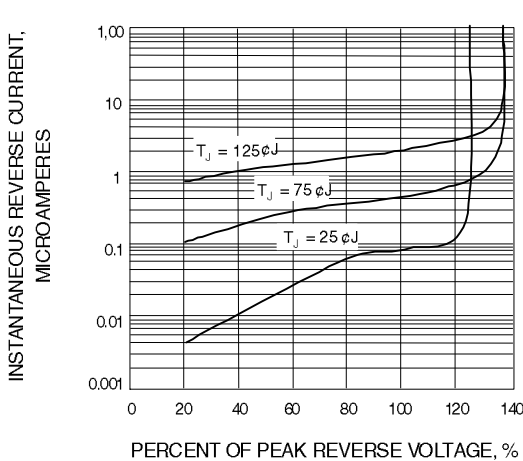


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

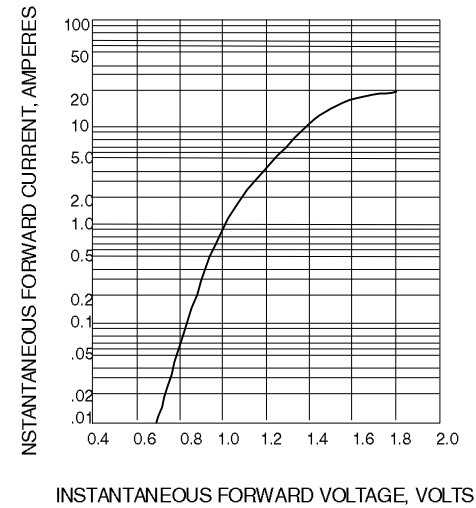


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

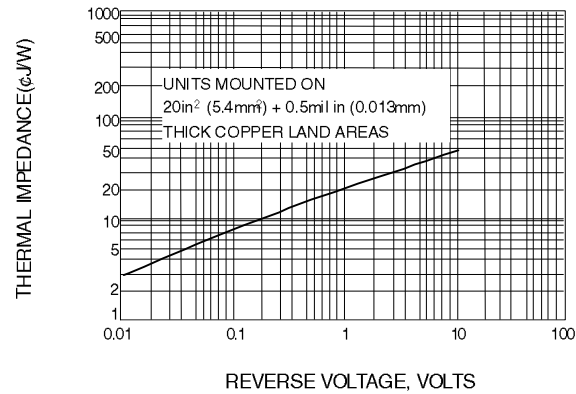


Fig. 5-TRANSIENT THERMAL IMPEDANCE

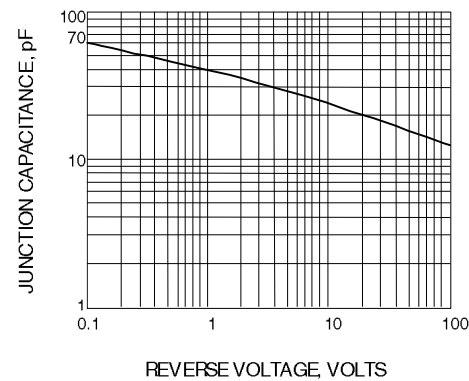


Fig. 6-TYPICAL JUNCTION CAPACITANCE