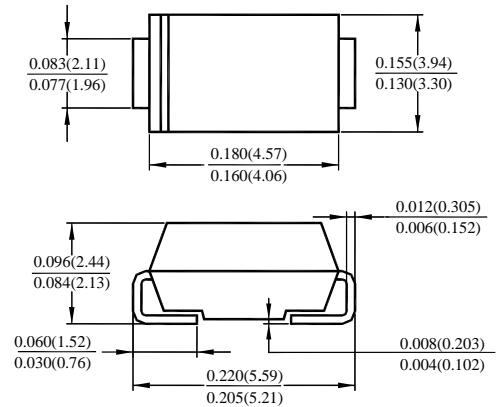


Surface Mount Rectifiers

FEATURES

- For surface mounted application
- Low forward voltage drop
- High current capability
- Easy pick and place
- High surge current capability
- Plastic material used carries Underwriters
- Laboratory Classification 94V-0
- High temperature soldering:
260°C / 10 seconds at terminals

S2A---S2M



Dimensions in inches and (millimeters)
DO-214AA (SMB)

MECHANICAL DATA

- Case: Molded plastic
- Case: Molded plastic
- Terminals: Solder plated
- Polarity: Indicated by cathode band
- Packaging: 12mm tape per EIA STD RS-481

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%.

Type Number	Symbol	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Unit
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 @ $T_L = 100^\circ C$	$I_{(AV)}$	2.0							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 @ 2.0A	V_F	1.15							V
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_R	5.0 125							uA uA
Typical Thermal Resistance (Note 3)	$R\theta_{JL}$ $R\theta_{JA}$	16 53							$^\circ C/W$
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							$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$ 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
3. Measured on P.C. Board with 0.4 x 0.4" (10 x 10mm) Copper Pad Areas.

S2A---S2M Typical Characteristics

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

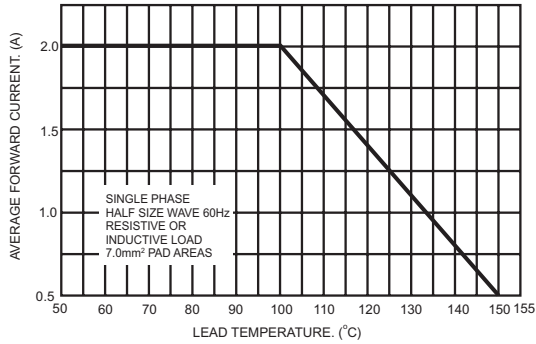


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

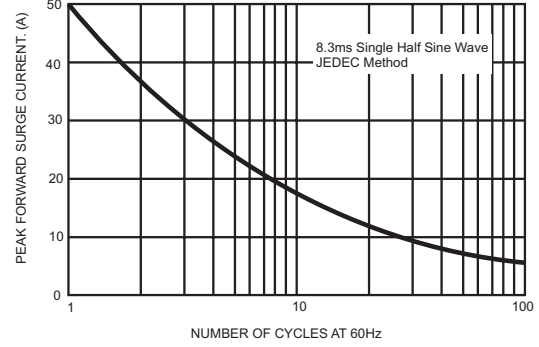


FIG.3- TYPICAL FORWARD CHARACTERISTICS

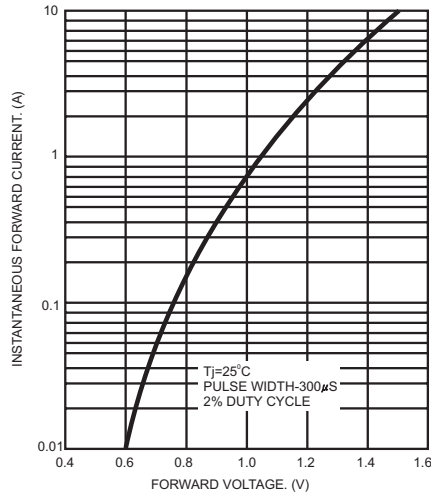


FIG.4- TYPICAL REVERSE CHARACTERISTICS

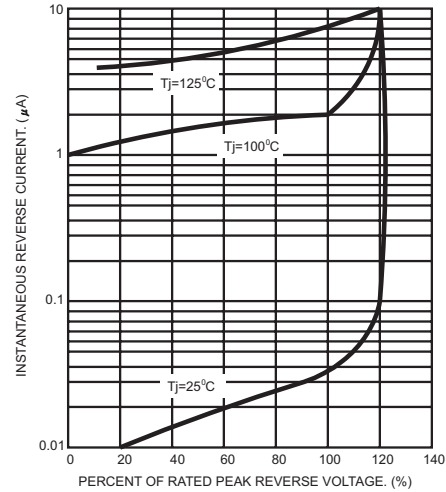


FIG.5- TYPICAL JUNCTION CAPACITANCE

