

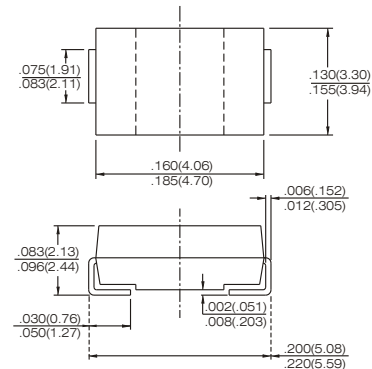
# S1AB thru S1MB

## SURFACE MOUNT STANDARD RECOVERY RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 1.0 AMPERES



SMB/DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- For surface mount applications
- Glass passivated junction
- Low profile package
- High current capability
- Easy pick and place
- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 250°C/10 seconds at terminals

### MECHANICAL DATA

Case : JEDEC DO-214AA molded plastic  
 Terminals : Pure tin plated, lead free  
 Polarity : Indicated by cathode band  
 Package : 12mm tape EIA STD RS-481  
 Weight : 0.093gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	S1AB	S1BB	S1DB	S1GB	S1JB	S1KB	S1MB	UNITS
Maximum Repetitive 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 $T_L = 110^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mm Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance (NOTE 1)	$C_J$	12							pF
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JL}$	30							$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J$ $T_{STG}$	-55 to +150							$^\circ\text{C}$

NOTES :

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. Measured on P.C.B. Board with 0.27" x 0.27" (7.0x7.0mm) copper pad areas

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### RATINGS AND CHARACTERISTIC CURVES S1AB THRU S1MB

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

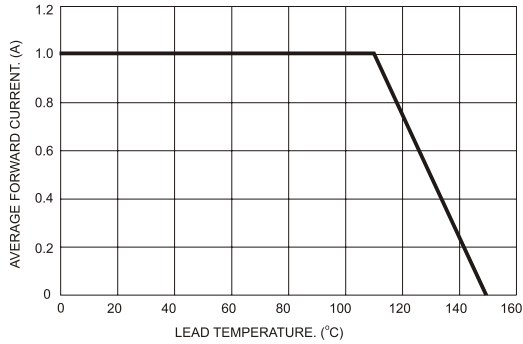


FIG.2- TYPICAL REVERSE CHARACTERISTICS

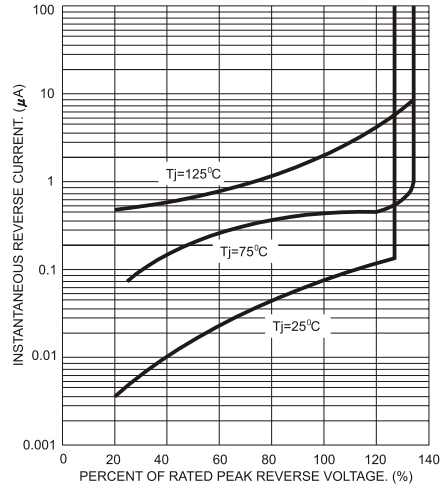


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

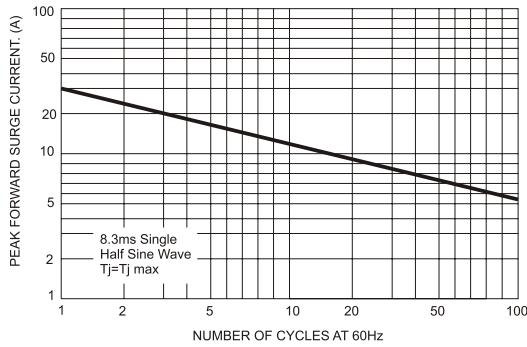


FIG.5- TYPICAL FORWARD CHARACTERISTICS

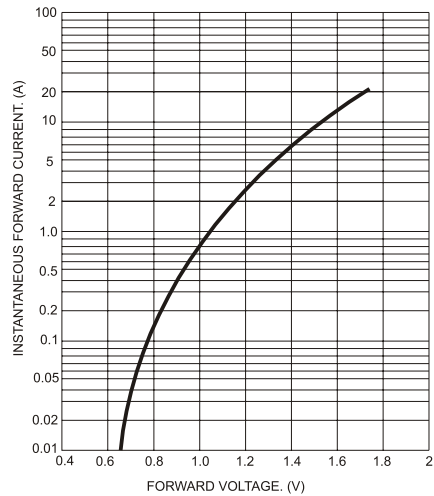


FIG.4- TYPICAL JUNCTION CAPACITANCE

