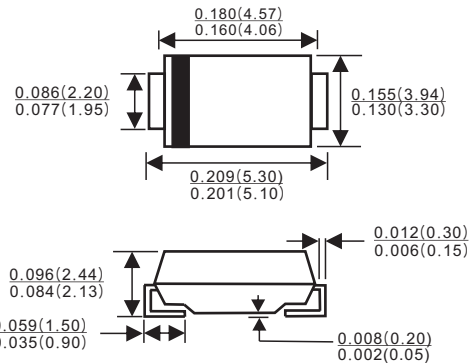




### SMB/DO-214AA

#### Features

- ◇ For surface mounted application
- ◇ Easy pick and place
- ◇ Metal to silicon rectifier, majority carrier conduction
- ◇ Low power loss, high efficiency
- ◇ High current capability, low VF
- ◇ High surge current capability
- ◇ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ◇ Epitaxial construction
- ◇ High temperature soldering: 260°C / 10 seconds at terminals



#### Mechanical Data

- ◇ Case: Molded plastic
- ◇ Terminals: Pure tin plated, lead free.
- ◇ Polarity: Indicated by cathode band
- ◇ Weight: 0.093gram

Dimensions in inches and(millimeters)

#### 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	SS 22B	SS 23B	SS 24B	SS 25B	SS 26B	SS 29B	SS 210B	SS 215B	SS 220B	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	220	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	125	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	220	V
Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)	$I_{(AV)}$	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 (Note 1) IF= 2.0A @ 25°C @ 100°C	$V_F$	0.5 0.4		0.70 0.65		0.85 0.70		0.95 0.80		V	
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	0.4				0.1				mA mA	
Typical Junction Capacitance (Note 3)	$C_j$	130									pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JL}$ $R_{\theta JA}$					17 75				°C/W	
Operating Temperature Range	$T_J$	-65 to +125				-65 to +150				°C	
Storage Temperature Range	$T_{STG}$	-65 to +150									°C

- Notes:
1. Pulse Test with PW=300 usec, 1% Duty Cycle
  2. Measured on P.C.Board with 0.4" x 0.4"(10mm x 10mm) Copper Pad Areas.
  3. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

### RATINGS AND CHARACTERISTIC CURVES (SS22B THRU SS220B)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

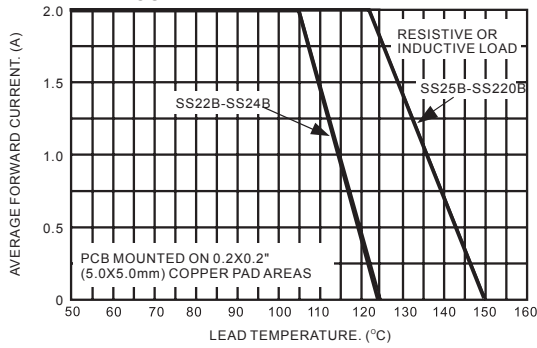


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

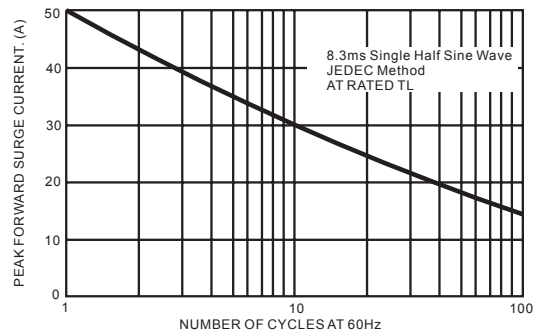


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

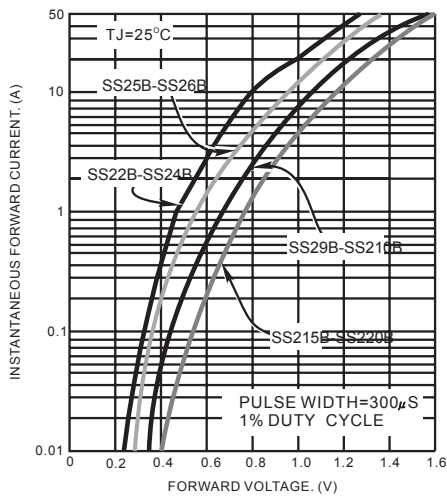


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

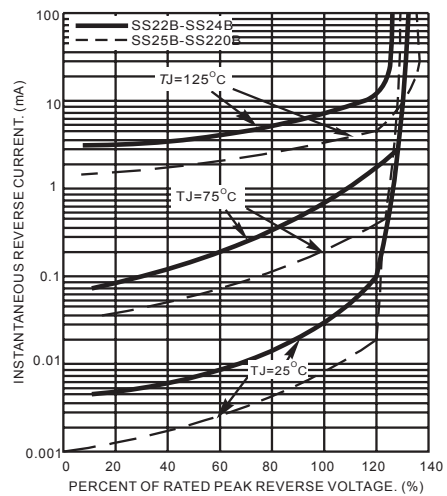


FIG. 5- TYPICAL JUNCTION CAPACITANCE

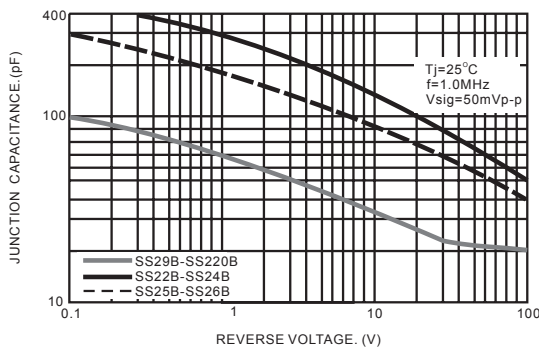
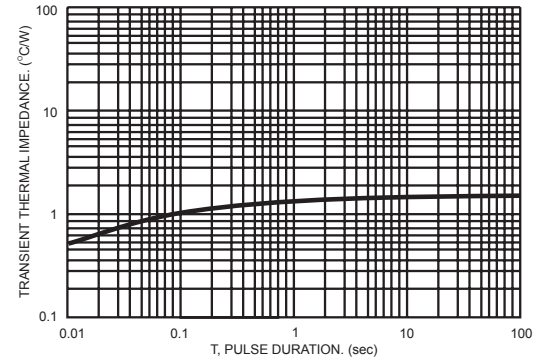


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMB	3000/REEL	48000	36X35.8X36.5	12.00	11.00