

# SS22 - SS215

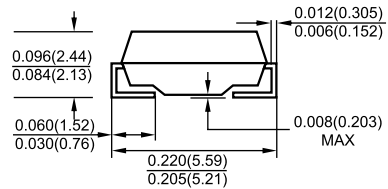
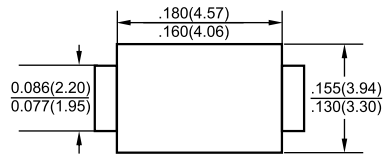
2.0 AMPS. Surface Mount Schottky Barrier Rectifiers



## 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 22	SS 23	SS 24	SS 25	SS 26	SS 29	SS 210	SS 215	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	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	
		10		5.0							
Typical Junction Capacitance (Note 3)	$C_j$	130								pF	
Typical Thermal Resistance ( Note 2 )	$R_{\theta JL}$	17								°C/W	
	$R_{\theta JA}$	75									
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.



# SS22 - SS215

## 2.0 AMPS. Surface Mount Schottky Barrier Rectifiers

### RATINGS AND CHARACTERISTIC CURVES (SS22 THRU SS215)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

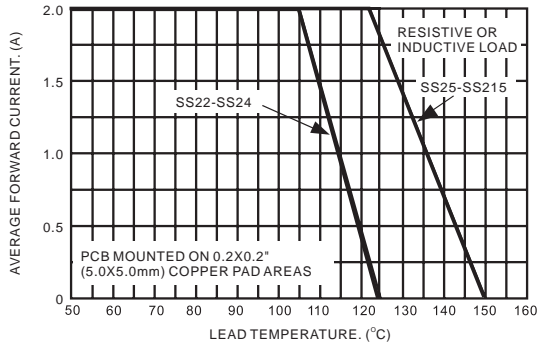


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

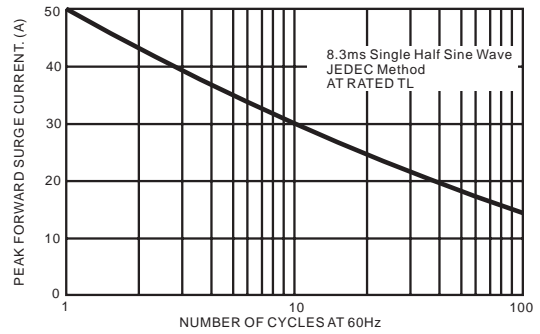


FIG.3- TYPICAL FORWARD CHARACTERISTICS

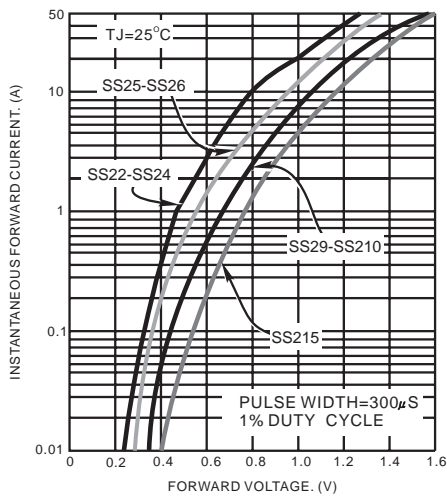


FIG.4- TYPICAL REVERSE CHARACTERISTICS

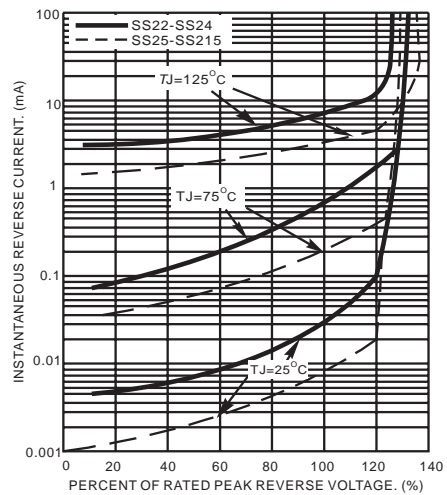


FIG.5- TYPICAL JUNCTION CAPACITANCE

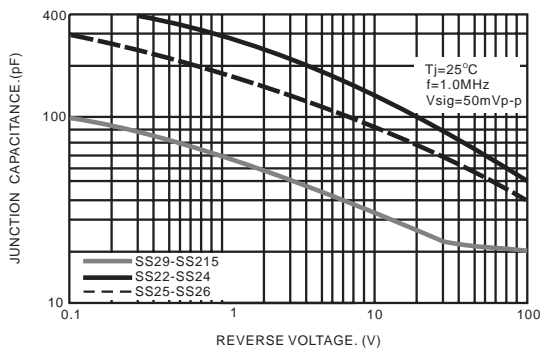


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

