

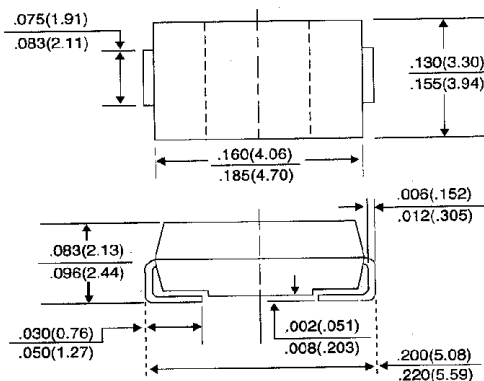
## SK22 THRU S210

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE - 20 TO 100 Volts    CURRENT - 2.0 Amperes**

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low  $V_F$
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

**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: Color band denotes cathode  
 Standard Packaging: 12mm tape (EIA-481)  
 Weight: 0.003 ounces 0.093 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load.

	SYMBOLS	SK22	SK23	SK24	SK25	SK26	SK28	SK29	S210	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	64	71	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current at TL (See Figure 1)	$I_{(AV)}$	2.0								Amps
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0								Amps
Maximum Instantaneous Forward Voltage at 2.0A (NOTE 1)	$V_F$	0.50		0.70			0.85			Volts
Maximum DC Reverse Current (NOTE 1) $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	$I_R$	0.5 20.0								mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JL}$ $R_{\theta JA}$	17 75								$^\circ C/W$
Operating Junction Temperature Range	$T_J$	-50 to +125								$^\circ C$
Storage Temperature Range	$T_{STG}$	-50 to +150								$^\circ C$

**NOTES:**

1. Pulse Test with  $PW = 300\mu sec$ , 2% Duty Cycle.
2. Mounted on P.C. Board with 8.0mm<sup>2</sup> (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES  
SK22 THRU S210

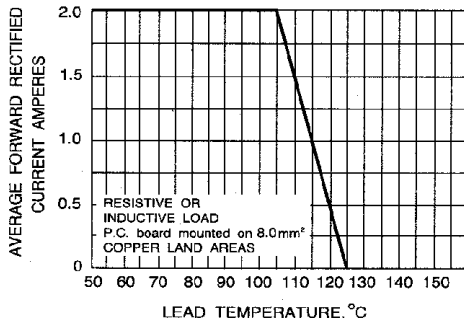


FIG. 1 - FORWARD CURRENT DERATING CURVE

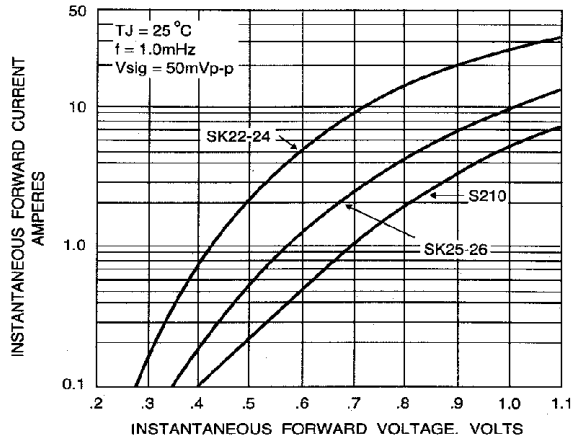


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

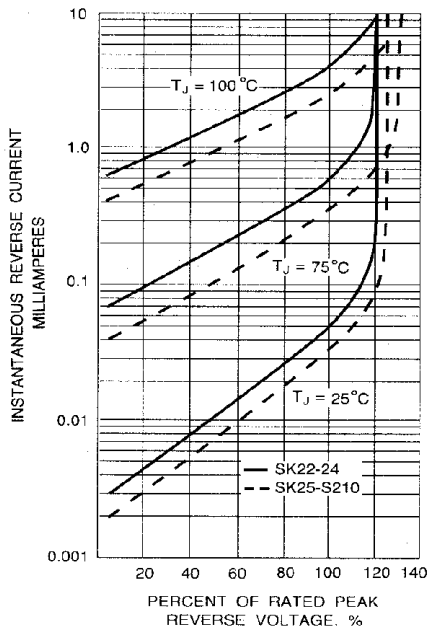


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

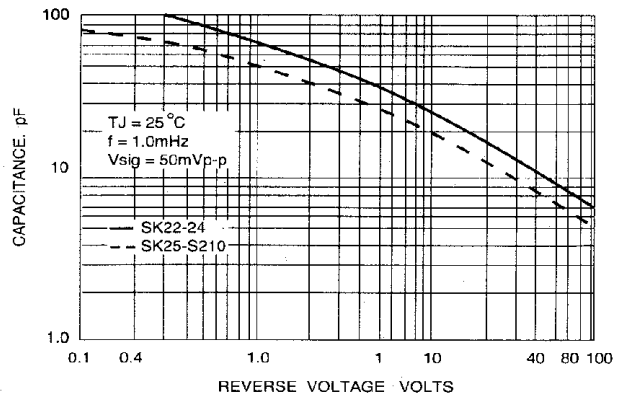


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

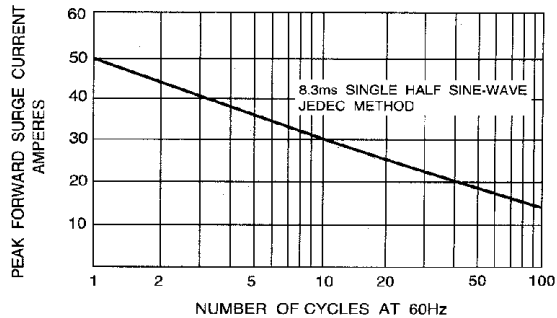


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT