

## SK12 THRU S110

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER VOLTAGE - 20 TO 100 Volts    CURRENT - 1.0 Ampere

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- 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

#### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

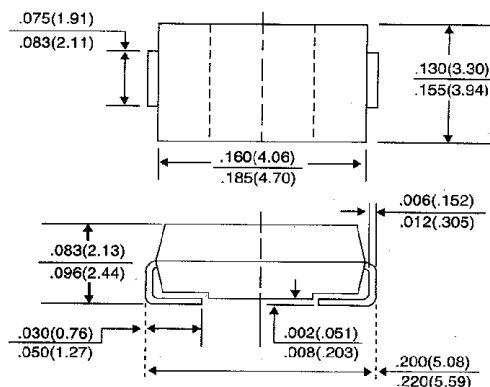
Terminals: Solder plated solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard Packaging: 12mm tape (EIA-481)

Weight: 0.003 ounces 0.093 gram

#### SMB/DO-214AA



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	SK12	SK13	SK14	SK15	SK16	SK18	SK19	S110	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 $T_L$ (See Figure 1)	$I_{(AV)}$	1.0								Amps
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0								Amps
Maximum Instantaneous Forward Voltage at 1.0A (NOTE 1)	$V_f$	0.50		0.70		0.85			Volts	
Maximum DC Reverse Current (NOTE 1) $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	0.5				20.0			mA	
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JL}$ $R_{\theta JA}$	35.0				95.0			$^\circ\text{C/W}$	
Operating Junction Temperature Range	$T_J$	-50 to +125								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-50 to +150								$^\circ\text{C}$

**NOTES:**

1. Pulse Test with  $PW = 300\mu\text{sec}$ , 2% Duty Cycle.
2. Mounted on P.C. Board with  $5.0\text{mm}^2$  (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES  
SK12 THRU S110

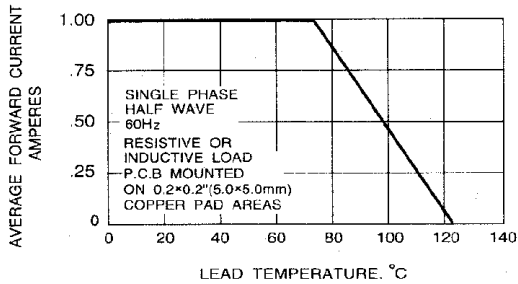


Fig. 1 - FORWARD CURRENT DERATING CURVE

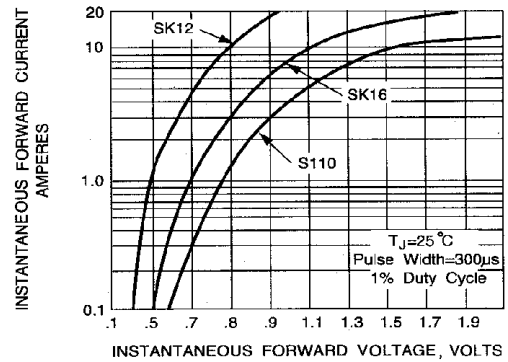


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

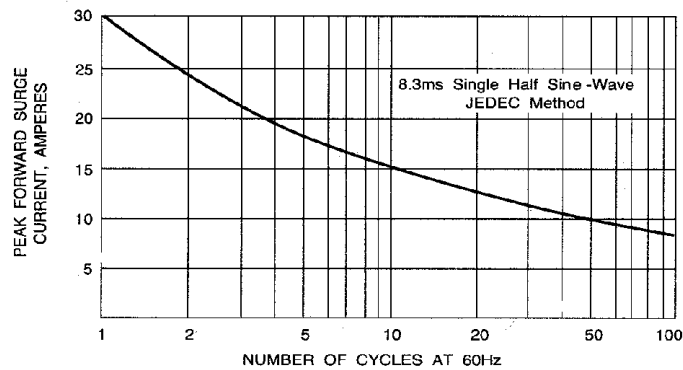


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

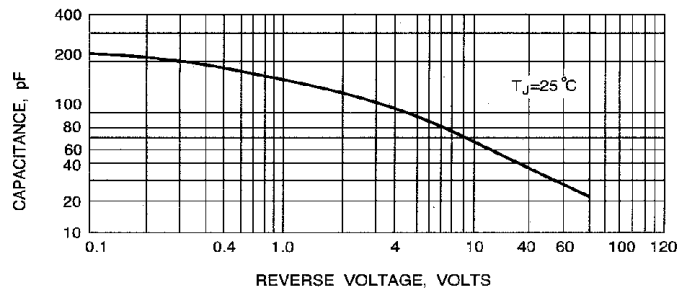


Fig. 4 - TYPICAL JUNCTION CAPACITANCE