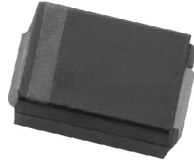


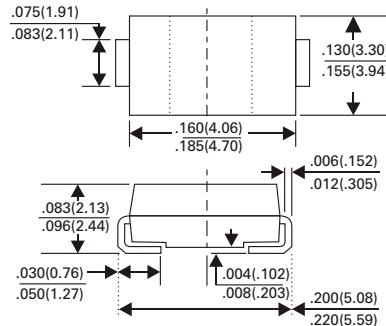
# SK12B thru SK110B

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 100 VOLTS CURRENT - 1.0 AMPERES



SMB/DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mount applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capability
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guarantee 260°C/10 seconds at terminals
- High temperature soldering : 260°C/10 seconds at terminals
- Pb free product at available : 99% Sn above meet Rohs environment substance directive request

### MECHANICAL DATA

Case : JEDEC DO-214AA molded plastic  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : Color band denotes cathode end (cathode)  
 Standard Package : 12mm tape (EIA STD EIA-481)  
 Weight : 0.003 ounce, 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	SK12B	SK13B	SK14B	SK15B	SK16B	SK18B	SK19B	SK110B	UNITS
Maximum Repetitive 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	63	70	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								Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	$V_F$	0.5		0.7		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								mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	35 95								°C / W
Operating at Storage Temperature Range $T_J$	$T_J$	-50 to +150								°C
Storage Temperature Range	$T_{STG}$	-55 to +150								°C

NOTES :

1. Pulse test with  $p_w=300 \mu S$ , 2% duty cycle
2. Mounted on P.C.B with  $5.0mm^2$  (0.13mm thick) copper pad areas

# SK12B thru SK110B

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### RATINGS AND CHARACTERISTIC CURVES SK12B THRU SK110B

Fig.1 - FORWARD CURRENT DERATING CURVE

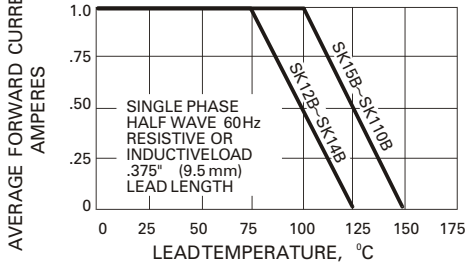


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

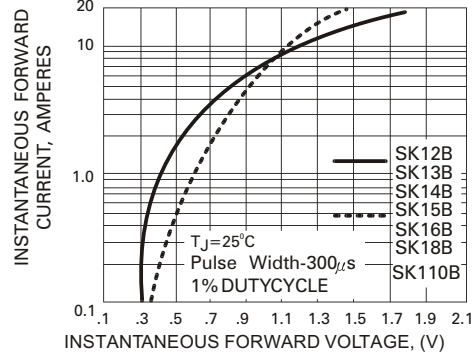


Fig.3A - TYPICAL FORWARD CHARACTERISTICS

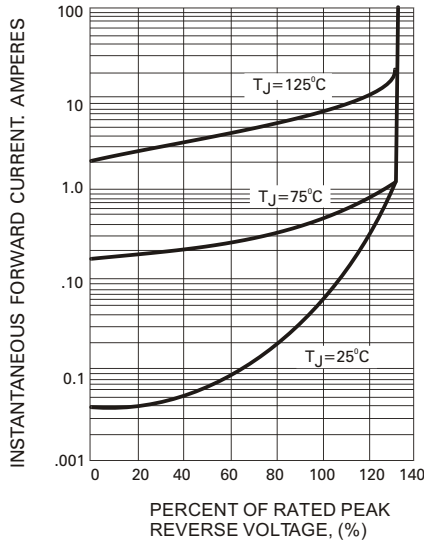


Fig.3B - TYPICAL REVERSE CHARACTERISTICS

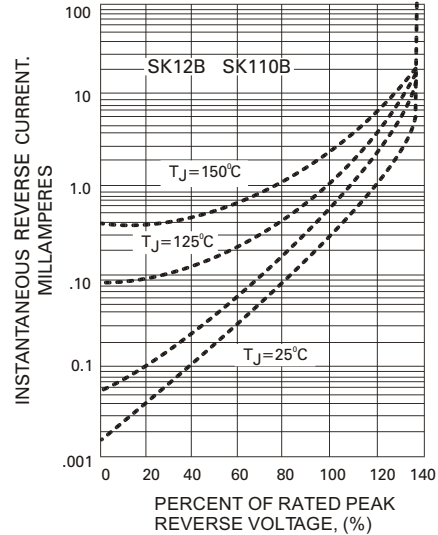


Fig.4 - TYPICAL JUNCTION CAPACITANCE

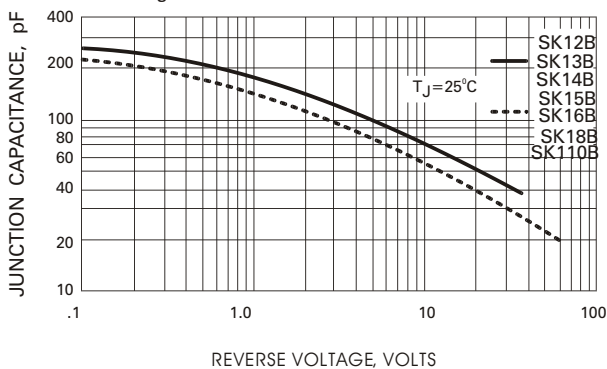


Fig.5 - MAXIMUM NON-REPETITIVE SURGE CURRENT

