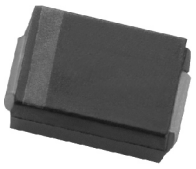
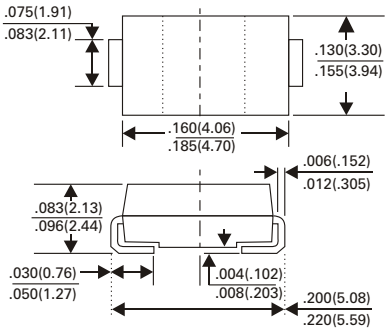
SK12B thru SK110B

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 guaranteect 260°C/10 seconds at terminals
- High temperature soldering：260°C/10 seconds at terminsls
- 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 RATIXGS 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°C at Rated DC Blocking Voltage T_A=100°C	I_R	0.5 20								mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	35 95								°C / W
Operating at Storag Temprature Range T_J	T_J	-50 to +150								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

NOTES：
1. Pulse test with pw=300 μS, 2% duty cycle
2. Mounted on P.C.B with 5.0mm² (0.13mm thick) copper pad areas

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

RATINGS AND CHARACTERISTIC CURVES SK12B THRU SK110B

Fig.1 - FORWARD CURRENT DERATING CURVE

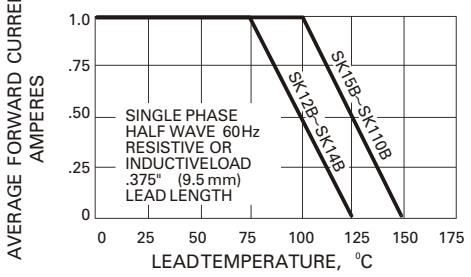


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

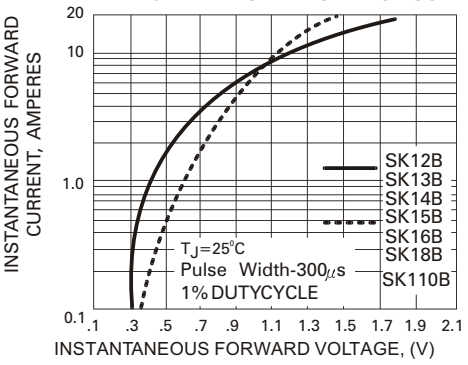


Fig.3A - TYPICAL FORWARD CHARACTERISTICS

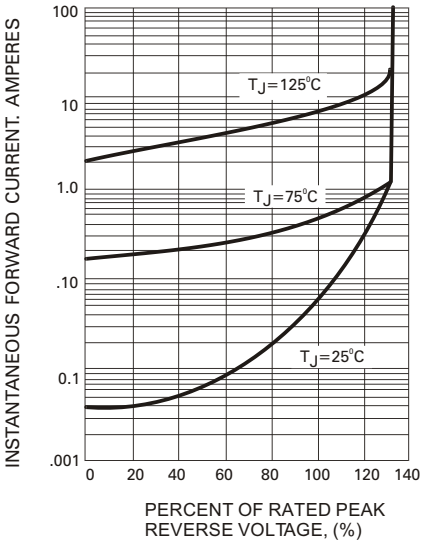


Fig.3B - TYPICAL REVERSE CHARACTERISTICS

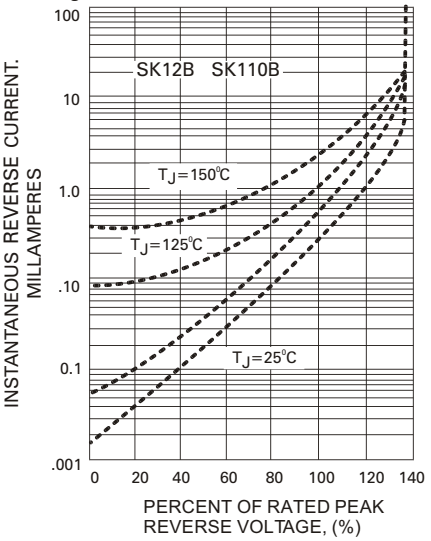


Fig.4 - TYPICAL JUNCTION CAPACITANCE

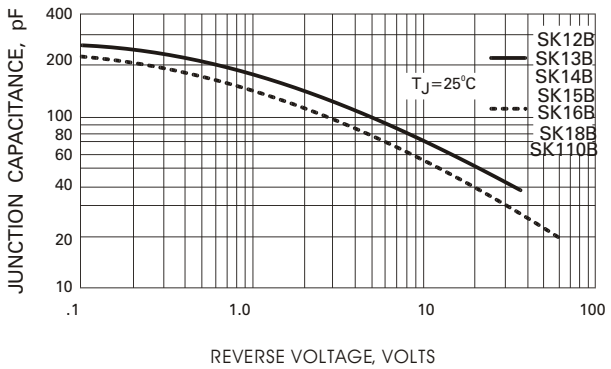


Fig.5 - MAXIMUM NON-REPETITIVE SURGE CURRENT

