

SK32 THRU S310

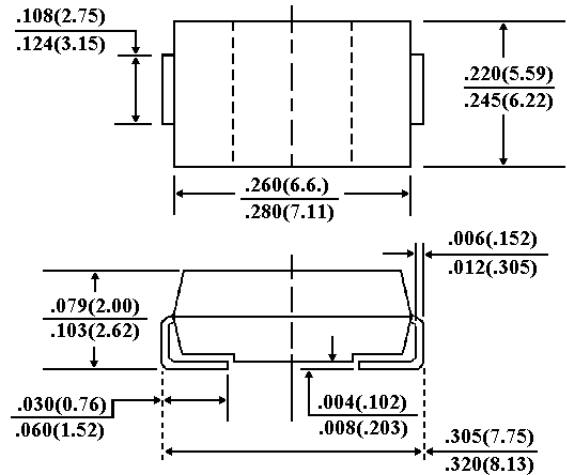
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 100 Volts CURRENT - 3.0 Amperes

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

SMC/DO-214AB



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode
 Standard packaging: 16mm tape (EIA-481)
 Weight: 0.007 ounce, 0.21 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SK32	SK33	SK34	SK35	SK36	SK38	SK39	S310	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 $T_L=75 \text{°C}$	$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	100								Amps
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	0.50			0.70		0.85			Volts
Maximum DC Reverse Current $T_A=25 \text{°C}$ (Note 1) At Rated DC Blocking Voltage $T_A=100 \text{°C}$	I_R	0.5 20.0								mA
Maximum Thermal Resistance (Note 2)	R °C/W R °C/W	17 55								°C/W
Operating Junction Temperature Range	T_J	-50 to +125								°C
Storage Temperature Range	T_{STG}	-50 to +150								°C

NOTES:

1. Pulse Test with $PW=300 \mu\text{s}$ sec, 2% Duty Cycle.
2. Mounted on P.C.Board with 14mm^2 (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES

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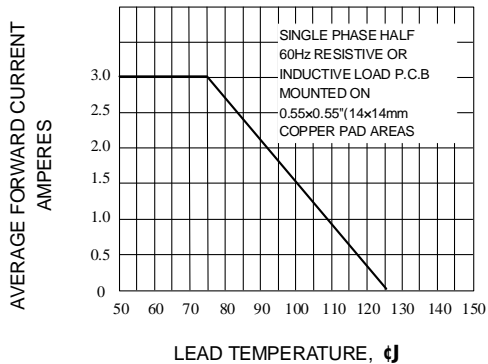
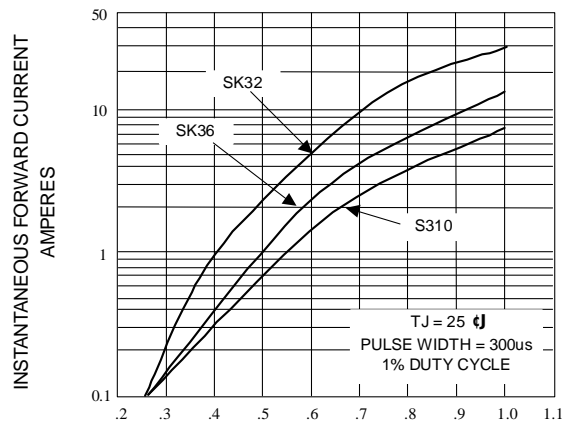


Fig. 1-FORWARD CURRENT DERATING CURVE



TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

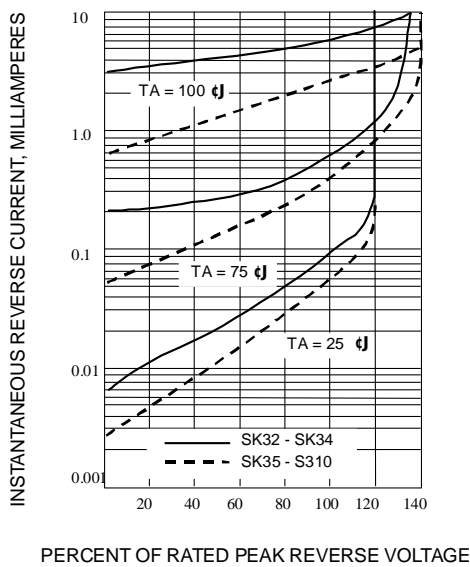


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

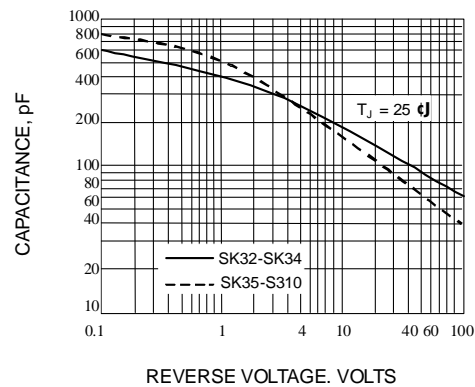


Fig. 4-TYPICAL JUNCTION CAPACITANCE

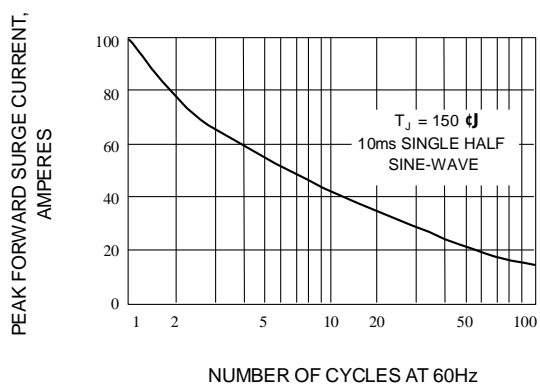


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT