

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-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

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic

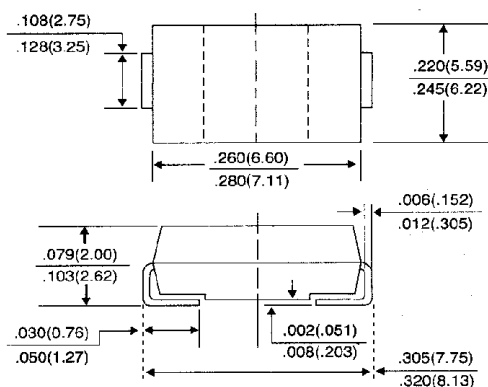
Terminals: Solder plated solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard Packaging: 16mm tape (EIA-481)

Weight: 0.007 ounces 0.21 gram

SMC/DO-214AB



Dimensions in inches and (millimeters)

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	VRRM	20	30	40	50	60	80	90	100	Volts	
Maximum RMS voltage	VRMS	14	21	28	35	42	56	64	71	Volts	
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	80	90	100	Volts	
Maximum Average Forward Rectified Current at TL = 75°C	IAV	3.0								Amps	
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100								Amps	
Maximum Instantaneous Forward Voltage at 3.0A (NOTE 1)	VF	0.50			0.75		0.85			Volts	
Maximum DC Reverse Current (NOTE 1) TA = 25°C at Rated DC Blocking Voltage TA = 100°C	IR					0.5 20.0					mA
Maximum Thermal Resistance (NOTE 2)	RθJL RθJA					17 55					°C/W
Operating Junction Temperature Range	TJ	-50 to +125								°C	
Storage Temperature Range	TSTG	-50 to +150								°C	

NOTES:

1. Pulse Test with $PW = 300\mu\text{sec}$, 2% Duty Cycle.
2. Mounted on P.C. Board with 14 mm² (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES SK32 THRU S310

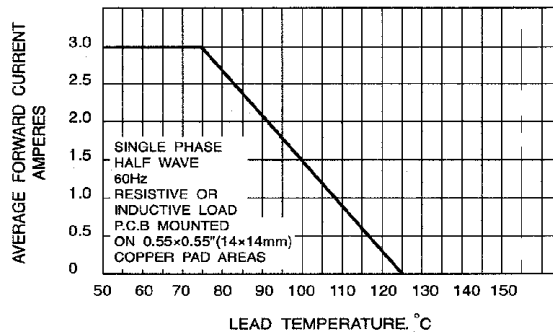


FIG. 1 - FORWARD CURRENT DERATING CURVE

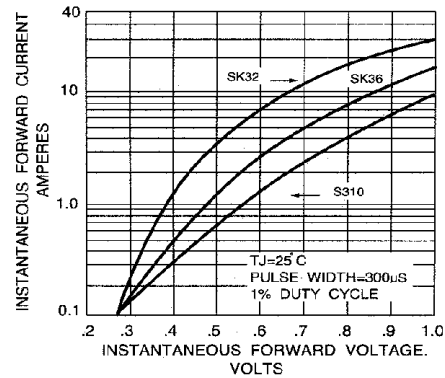


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

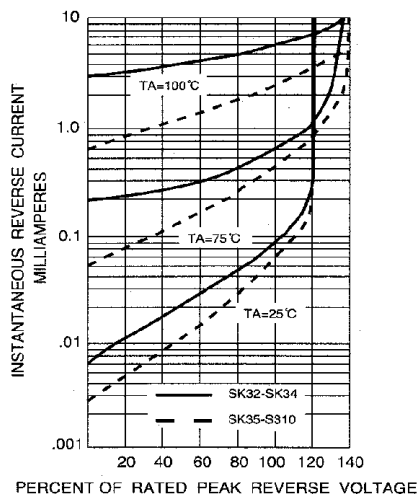


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

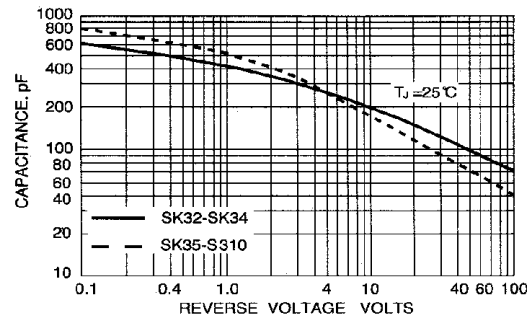


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

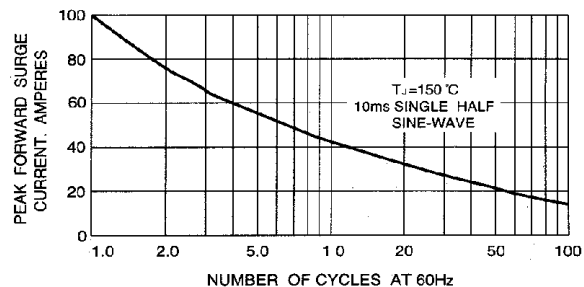


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT