



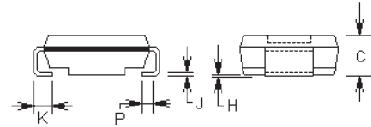
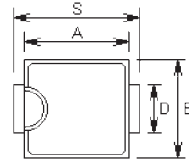
SK32 THRU SK3B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 20 to 100 Volts
Forward 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

SMC



Mechanical Data

- **Case:** SMC molded plastic
- **Terminals:** Solder plated solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode
- **Weight:** 0.007 ounce, 0.25 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.260	0.280	6.60	7.11	
B	0.220	0.240	5.59	6.10	
C	0.075	0.095	1.90	2.41	
D	0.115	0.121	2.92	3.07	
H	0.0020	0.0080	0.051	0.152	
J	0.006	0.012	0.15	0.30	
K	0.030	0.050	0.76	1.27	
P	0.020 REF		0.51 REF		
S	0.305	0.320	7.75	8.13	

Maximum Ratings and Electrical Characteristics

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

	Symbols	SK32	SK33	SK34	SK35	SK36	SK37	SK38	SK39	SK3B	Units	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	Volts	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	Volts	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	70	80	90	100	Volts	
Maximum average forward rectified current at $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	100.0									Amps	
Maximum instantaneous forward voltage at 3.0A (Note 1)	V_F	0.55		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					3.0 20.0						mA
Maximum thermal resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$					17.0 55.0						°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=300uSec, 2% duty cycle
- (2) Mounted on P.C. Board with 14mm² (0.013mm thick) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

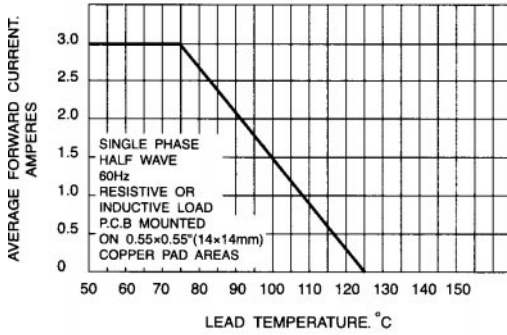


FIG. 1 - FORWARD CURRENT DERATING CURVE

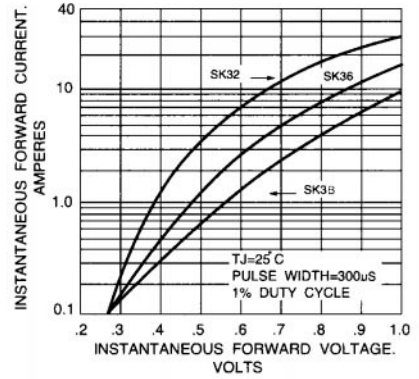


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

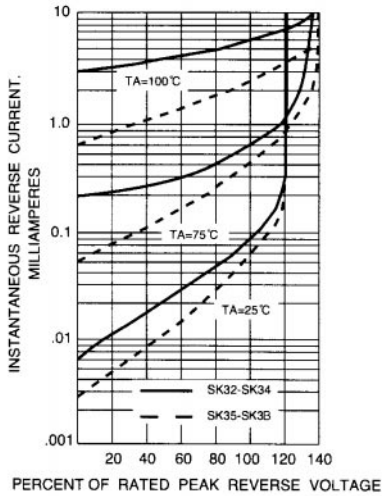


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

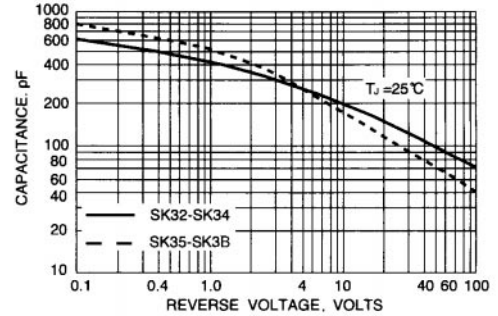


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

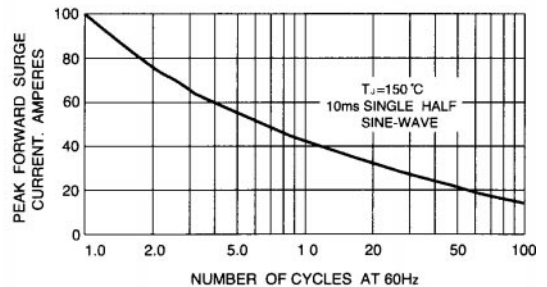


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT