



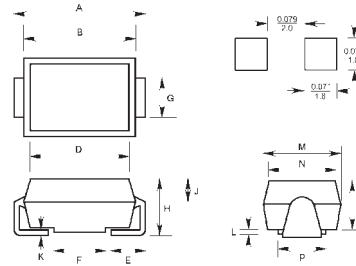
# SK22 THRU SK2B

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**Reverse Voltage - 20 to 100 Volts**  
**Forward Current - 2.0 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

SMA



DIM	DIMENSIONS				Note
	Inches		mm		
A	M. in.	Max.	M. in.	Max.	
A	0.216	0.226	5.48	5.74	
B	0.176	0.182	4.48	4.63	
C	0.094	0.100	2.40	2.55	
D	0.170	0.176	4.33	4.48	
E	0.039	0.055	1.00	1.40	
F	0.060	0.081	2.03	2.07	
G	0.068	0.083	1.72	2.10	
H	0.112	0.118	2.85	3.00	
J	0.057	-	1.44	-	
K	-	0.018	-	0.45	
L	0.016	-	0.40	-	
M	0.109	0.115	2.77	2.93	
N	0.105	0.107	2.67	2.73	
P	0.078	0.081	2.00	2.05	

## Mechanical Data

- **Case:** SMA molded plastic
- **Terminals:** Solder plated solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode
- **Weight:** 0.004 ounce, 0.11 gram

## Maximum Ratings and Electrical Characteristics

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

	Symbols	SK22	SK23	SK24	SK25	SK26	SK27	SK28	SK29	SK2B	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 $T_c=105^\circ\text{C}$ (see Figure 1)	$I_{(AV)}$	2.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	$I_{FSM}$	50.0										Amps
Maximum instantaneous forward voltage at 2.0A (Note 1)	$V_F$	0.55			0.70			0.85			Volts	
Maximum DC reverse current (Note 1) at rated DC blocking voltage	$I_R$	0.5 20.0										mA
Typical thermal resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	17.0 75.0										°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=300  $\mu$  Sec, 2% Duty Cycle
- (2) Mounted on P.C. Board with 8.0mm<sup>2</sup> (0.013mm thick) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES

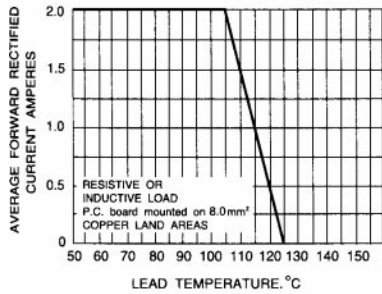


FIG. 1 - FORWARD CURRENT DERATING CURVE

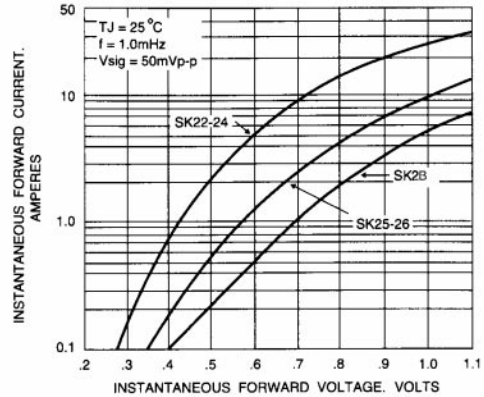


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

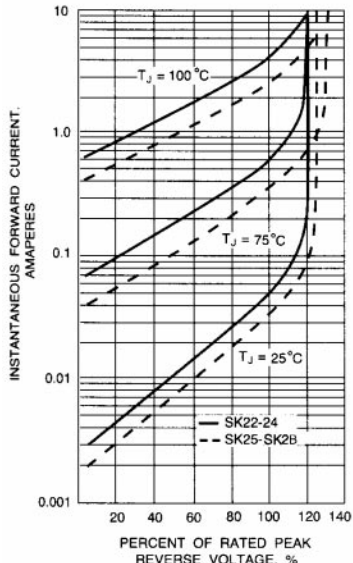


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

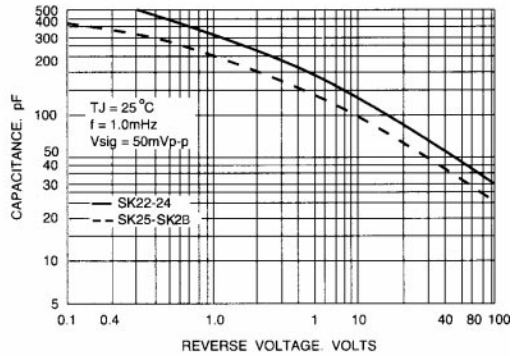


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

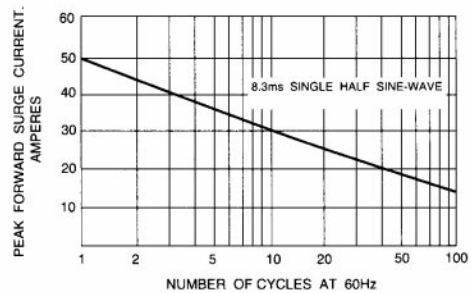


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT