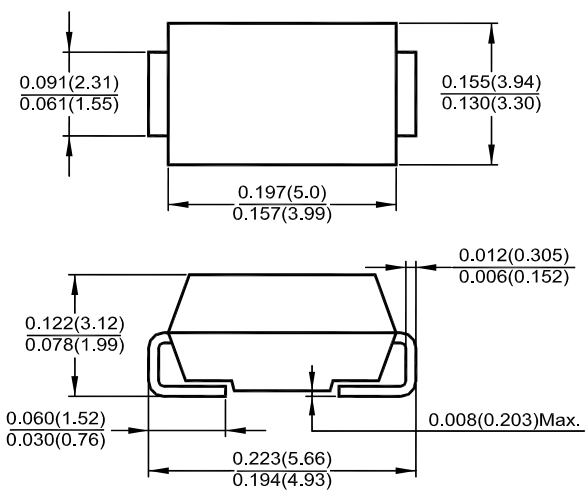
SK22D THRU SK210D

Surface Mount Schottky Barrier Rectifiers
Reverse Voltage - 20 to 100 V
Forward Current - 2 A

Features
- The plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Built-in strain relief, ideal for automated placement
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

SMB (DO-214AA)



Dimensions in inches and (millimeters)

Mechanical Data
- **Case:** JEDEC SMB (DO-214AA) molded plastic body
- **Terminals:** solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** color band denotes cathode end
- **Mounting position:** Any

Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave 60 Hz, resistive or inductive load; For capacitive load current derate by 20%.

Parameter	Symbols	SK22D	SK23D	SK24D	SK25D	SK26D	SK28D	SK210D	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	0.55			0.70		0.85		V
Maximum DC Reverse Current T_a = 25 °C	I_R	0.5							mA
at Rated DC Blocking Voltage T_a = 100 °C		20			10				
Typical Junction Capacitance [1]	C_J	220			180				pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	75							°C/W
Operating Junction Temperature Range	T_j	- 65 to + 125			- 65 to + 150				°C
Storage Temperature Range	T_{stg}	- 65 to + 150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V.
[2] P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

FIG.1-FORWARD CURRENT DERATING CURVE

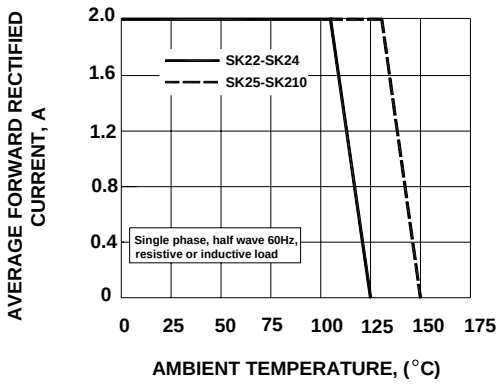


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

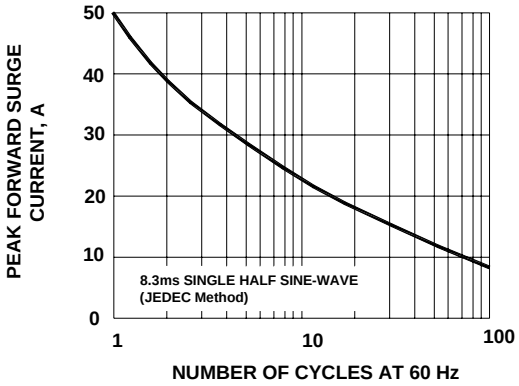


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

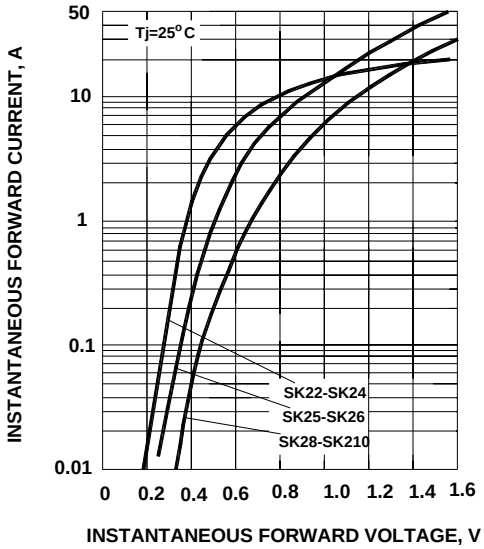


Fig.4- TYPICAL REVERSE CHARACTERISTICS

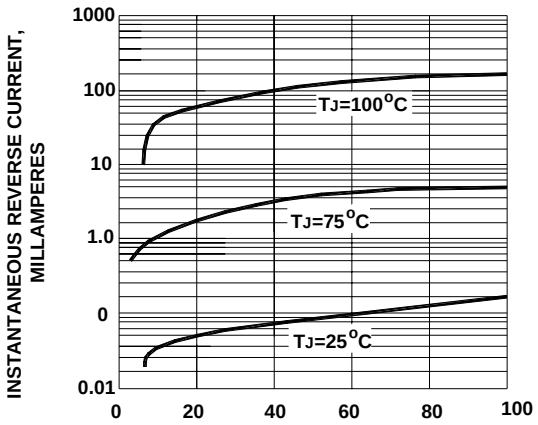


Fig.5- TYPICAL JUNCTION CAPACITANCE

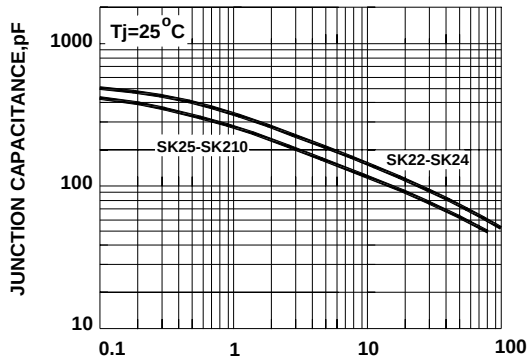


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE