

SK22 THRU SK210

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 Volts

Forward Current - 2.0 Amperes

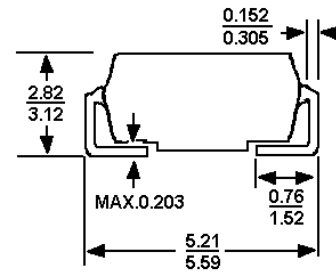
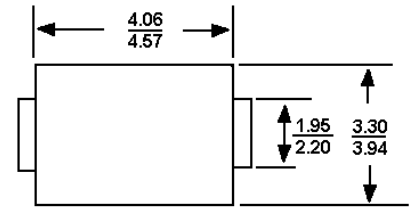
Features

- 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

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

SMB/DO214AA



Dimensions in mm

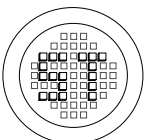
Absolute Maximum Ratings and Characteristics

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

	Symbols	SK22	SK23	SK24	SK25	SK26	SK28	SK210	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 at T_L (see fig.1)	$I_{(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Maximum instantaneous forward voltage at 2.0A	V_F	0.55		0.70		0.85		V	
Maximum DC reverse current at rated DC blocking voltage	I_R	0.5							mA
$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$		20		10					
Typical junction capacitance(Note1)	C_J	220		180			pF		
Typical thermal resistance (Note 2)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-65 to +125			-65 to +150			$^\circ\text{C}$	
Storage temperature range	T_S	-65 to +150							$^\circ\text{C}$

Notes: (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.

(2) P.C.B. mounted with 0.2 x 0.2" (5 x 5mm) copper pad areas.



®

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FIG.1-FORWARD CURRENT DERATING CURVE

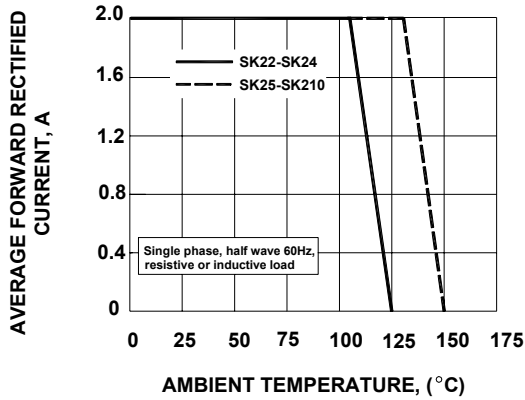


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

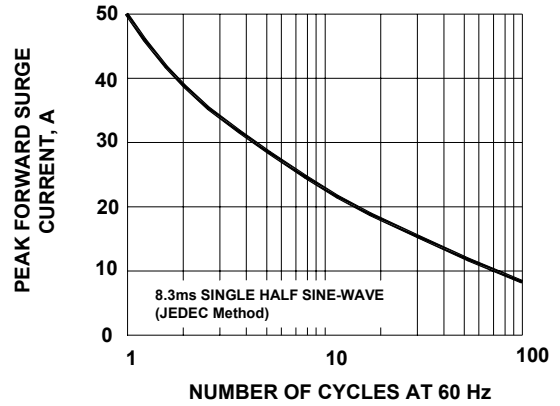


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

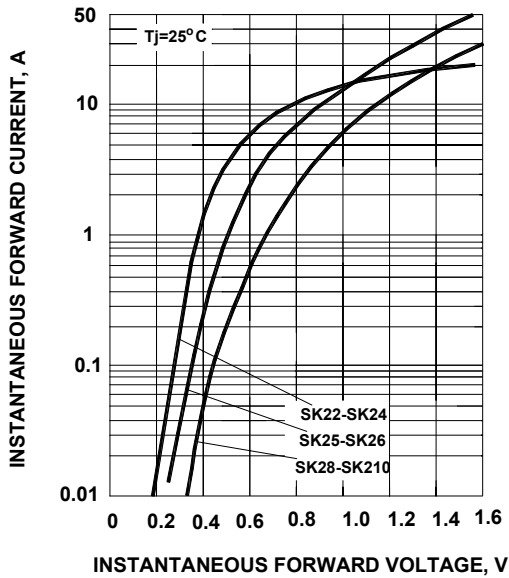


Fig.4- TYPICAL REVERSE CHARACTERISTICS

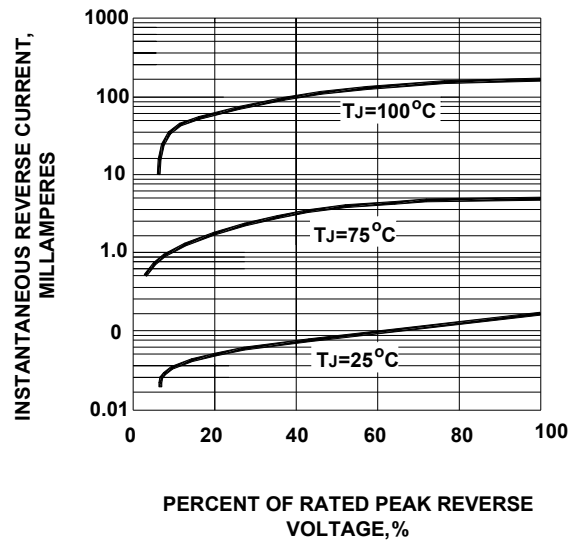


Fig.5- TYPICAL JUNCTION CAPACITANCE

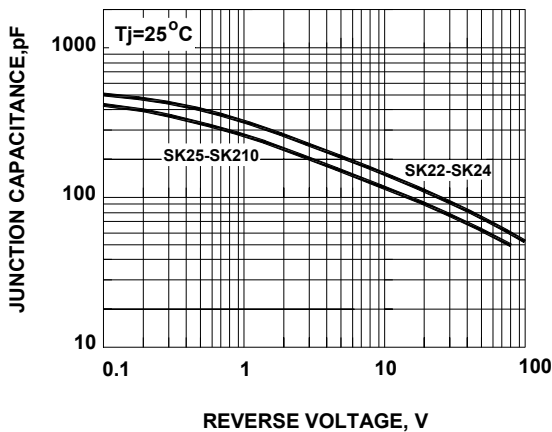
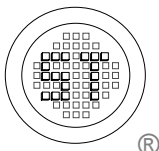
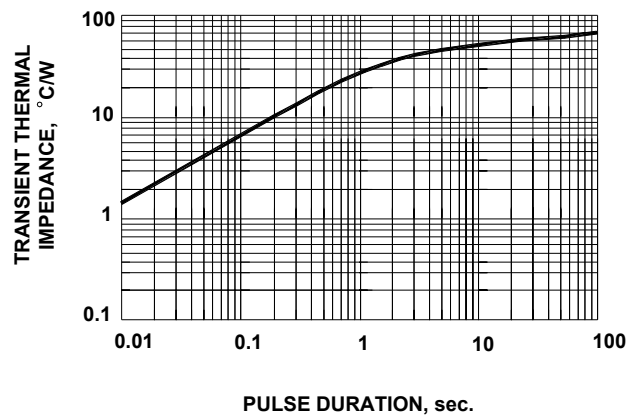


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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ISO 9001 : 2000
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