

SK22D THRU SK210D

Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 100 V

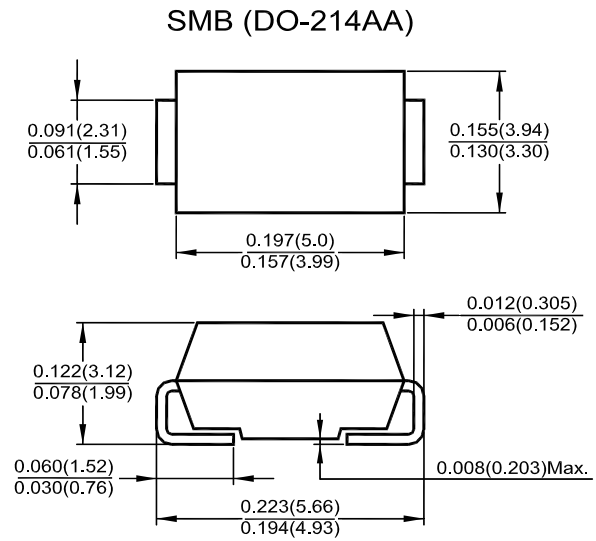
Forward Current - 2 A

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

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



Dimensions in inches and (millimeters)

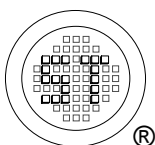
Absolute Maximum Ratings and Characteristics

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 at Rated DC Blocking Voltage T _a = 100 °C	I _R	0.5							mA
		20			10				
Typical Junction Capacitance ¹⁾	C _J	220			180				pF
Typical Thermal Resistance ²⁾	R _{θJA}	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.



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Dated: 08/06/2012 C Rev: 02

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FIG.1-FORWARD CURRENT DERATING CURVE

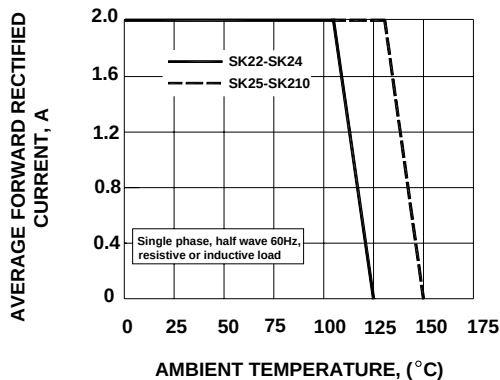


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

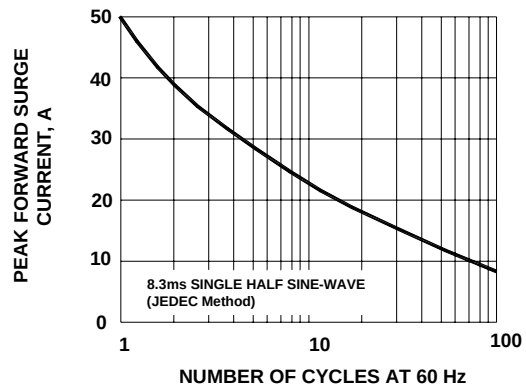


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

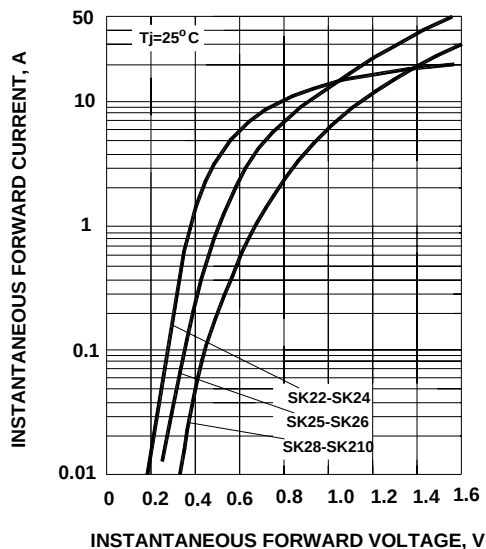


Fig.4- TYPICAL REVERSE CHARACTERISTICS

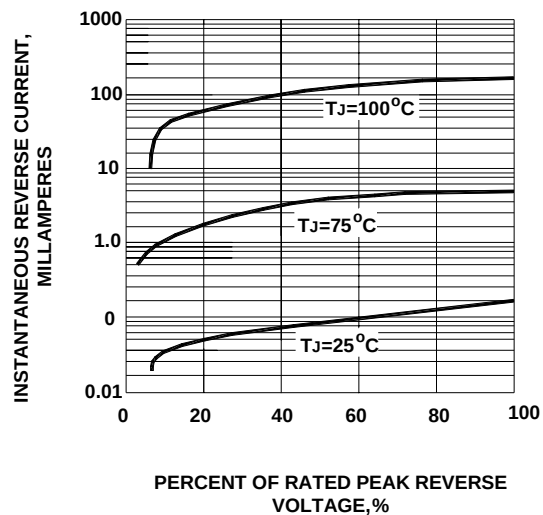


Fig.5- TYPICAL JUNCTION CAPACITANCE

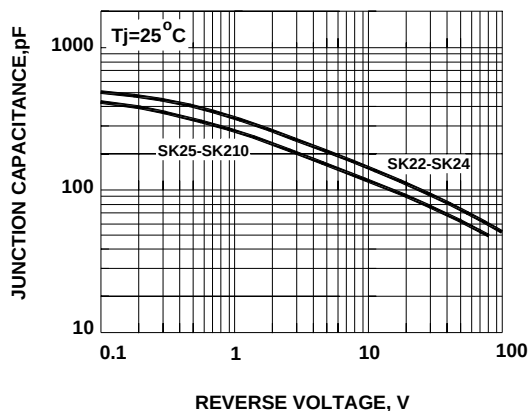
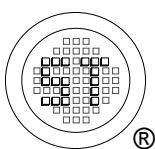
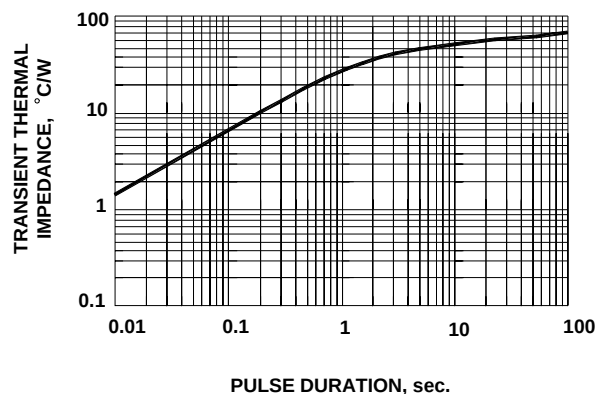


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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