

SK32D THRU SK3AD

Schottky Barrier Rectifier
Reverse Voltage - 20 to 100 V
Forward Current - 3 A

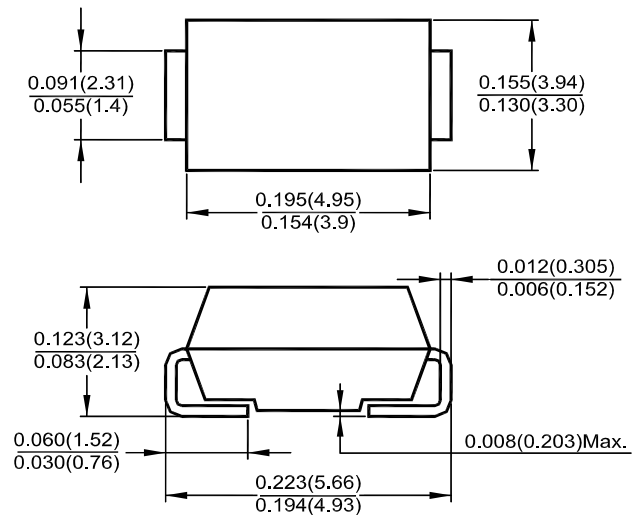
Features

- 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 mount applications
- Low profile package
- Low power loss, high efficiency
- High current capability , Low forward voltage drop
- For use in low volatge, high frequency inverters, free wheeling, and polarity protection applications

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

SMB (DO-214AA)



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and Characteristics

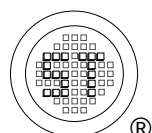
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load, For capacitive load, derate by 20 %

Parameter	Symbols	SK32D	SK33D	SK34D	SK35D	SK36D	SK38D	SK3AD	Units
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	57	71	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	I _{F(AV)}	3							A
Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method)	I _{FSM}	80							A
Maximum Forward Voltage at 3 A DC ¹⁾	V _F	0.55			0.75		0.85		V
Maximum Reverse Current at Rated DC Blocking Voltage ¹⁾ T _a = 25 °C T _a = 100 °C	I _R	1.5							mA
		20			10				
Typical Junction Capacitance ³⁾	C _j	250			160				pF
Typical Thermal Resistance ²⁾	R _{θJA}	55							°C/W
	R _{θJL}	17							
Operating Junction Temperature Range	T _j	- 65 to + 125			- 65 to + 150				°C
Storage Temperature Range	T _{stg}	- 65 to + 150							°C

¹⁾ Pulse test: 300 μs pulse width, 1% duty cycle.

²⁾ P.C.B. mounted with 0.55 X 0.55" (14 X 14 mm) copper pad areas.

³⁾ Measured at 1 MHz and applied reverse voltage of 4 V.



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FIG.1-FORWARD CURRENT DERATING CURVE

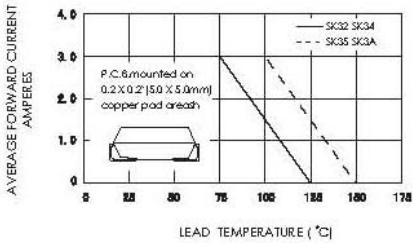


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

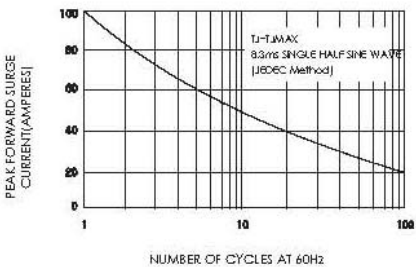


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

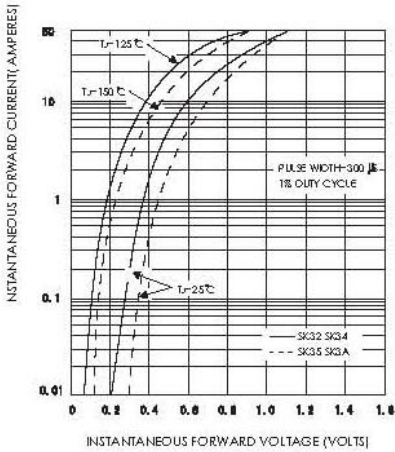


FIG.4-TYPICAL REVERSE CHARACTERISTICS

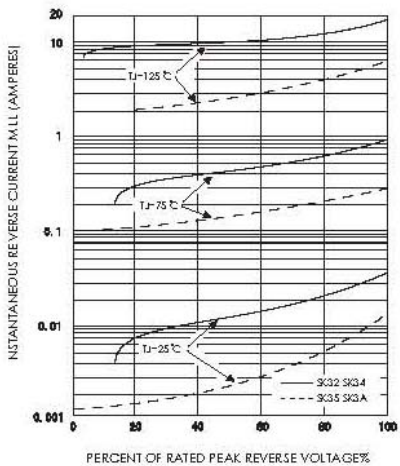


FIG.5-TYPICAL JUNCTION CAPACITANCE

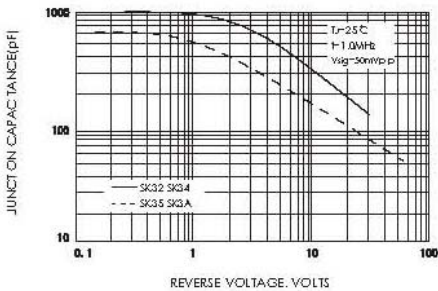


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

