

SK32 THRU SK3A

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 V

Forward Current - 3 A

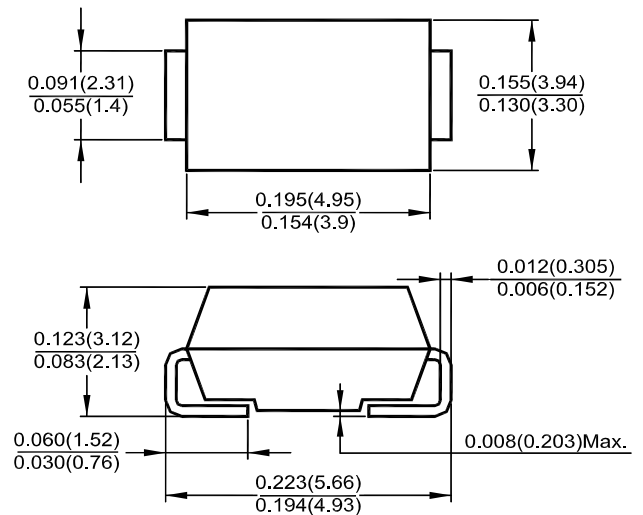
Features

- 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

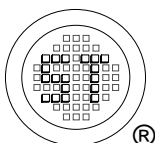
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load, For capacitive load, derate by 20 %

Parameter	Symbols	SK32	SK33	SK34	SK35	SK36	SK38	SK3A	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⁾	I_R	1.5							mA
$T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$		20		10					
Typical Junction Capacitance ³⁾	C_j	250		160			pF		
Typical Thermal Resistance ²⁾	$R_{\theta JA}$ $R_{\theta JL}$	55							$^\circ\text{C/W}$
		17							
Operating Junction Temperature Range	T_j	- 65 to + 125			- 65 to + 150			$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 65 to + 150							$^\circ\text{C}$

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

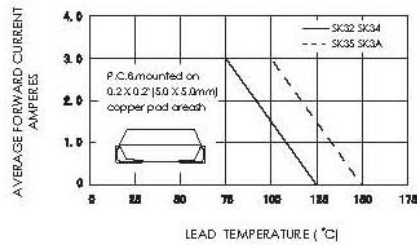


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

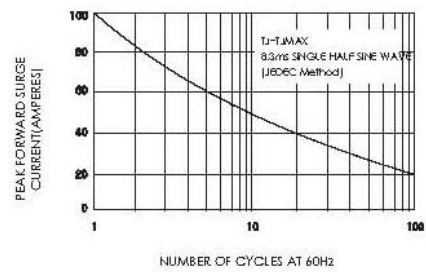


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

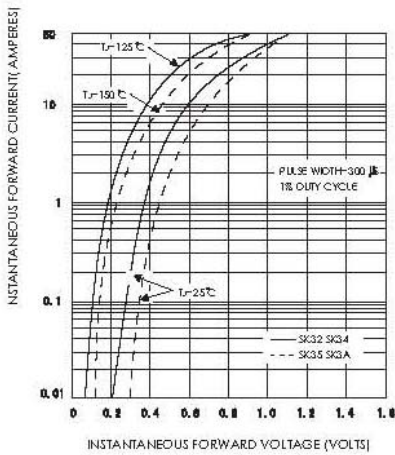


FIG.4-TYPICAL REVERSE CHARACTERISTICS

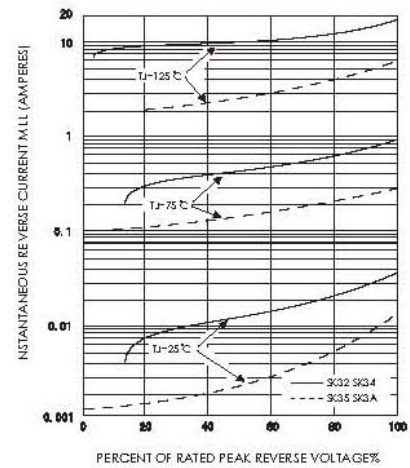


FIG.5-TYPICAL JUNCTION CAPACITANCE

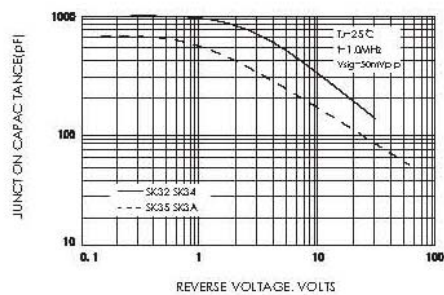
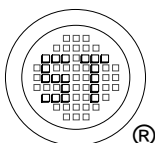
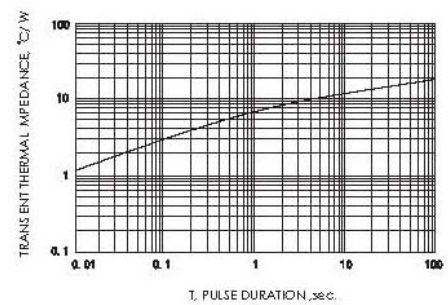


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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