

SK52BD THRU SK56BD

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 V

Forward Current - 5 A

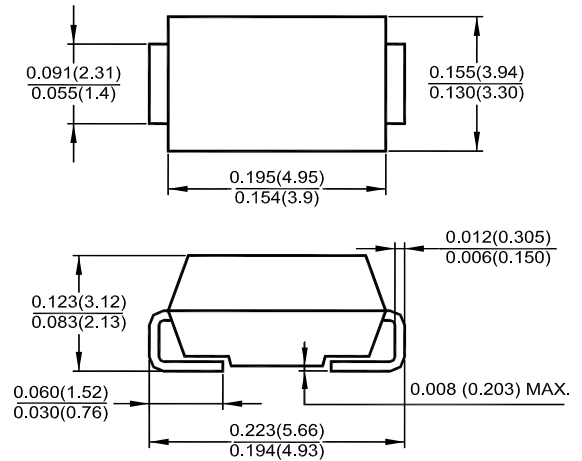
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- Low profile package
- Built-in strain relief, ideal for automated placement
- For use in low voltage, 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)

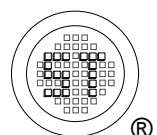
Maximum Ratings and Electrical Characteristics

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	SK52BD	SK53BD	SK54BD	SK55BD	SK56BD	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	I _{F(AV)}	5					A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150					A
Maximum Forward Voltage at 5 A ¹⁾	V _F	0.55			0.75		V
Maximum DC Reverse Current T _a = 25°C at Rated DC Blocking Voltage T _a = 100°C	I _R	0.5					mA
		20					
Typical Thermal Resistance ²⁾	R _{θJA}	55					°C/W
	R _{θJL}	17					
Operating and Storage Temperature Range	T _j , T _{stg}	- 55 to + 150					°C

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

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



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FIG.1-FORWARD CURRENT DERATING CURVE

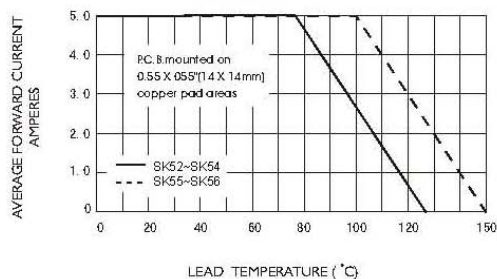


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

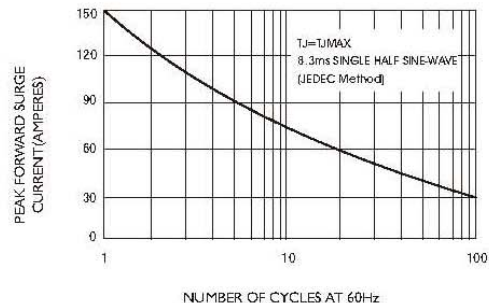


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

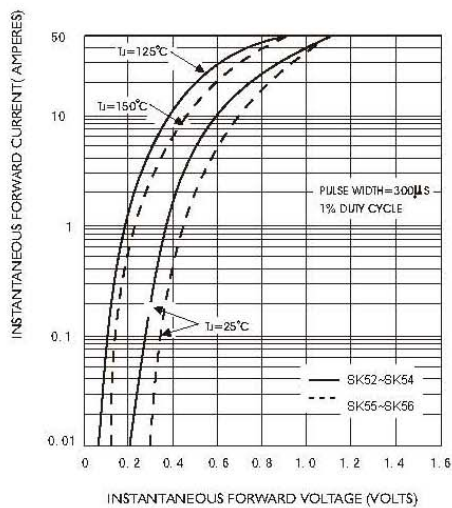


FIG.4-TYPICAL REVERSE CHARACTERISTICS

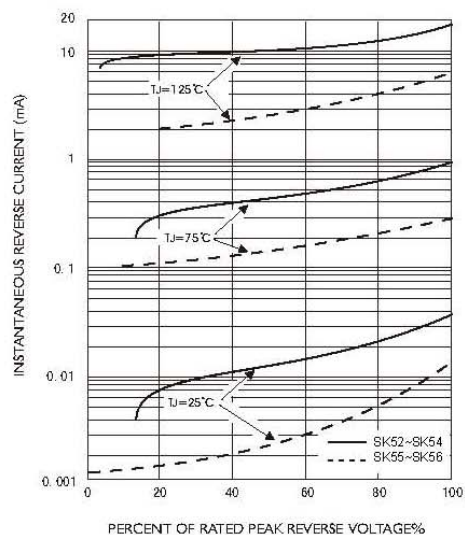


FIG.5-TYPICAL JUNCTION CAPACITANCE

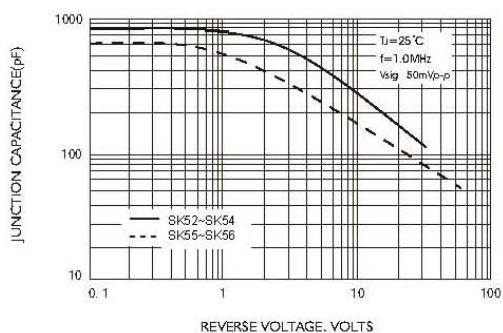


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

