

SK52C THRU SK5AC

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 V

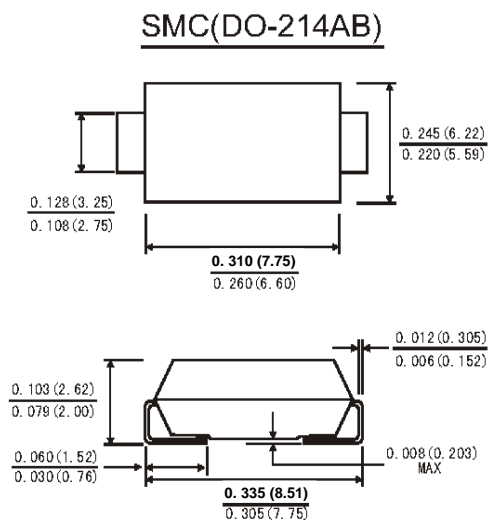
Forward Current - 5 A

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 SMC (DO-214AB) molded plastic body
- Terminals: solder plated, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

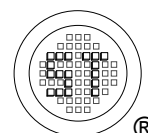
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbols	SK52C	SK53C	SK54C	SK55C	SK56C	SK58C	SK5AC	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"(9.5mm) Lead Length	I _{F(AV)}	5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC method at Rated T _L)	I _{FSM}	150							A
Maximum Forward Voltage at 5 A ¹⁾	V _F	0.55			0.75		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 ³⁾	C _J	500			400				pF
Typical Thermal Resistance ²⁾	R _{θJA}	55							°C/W
	R _{θJL}	10							
Operating Junction Temperature Range	T _J	- 65 to + 125							°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 0.55 X 0.55" (14X14mm) copper pad areas

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



SK52C THRU SK5AC

FIG.1-FORWARD CURRENT DERATING CURVE

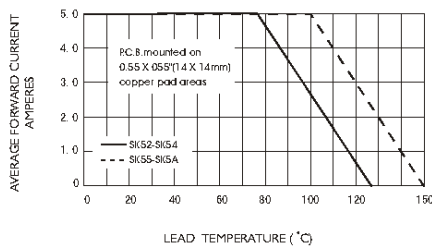


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

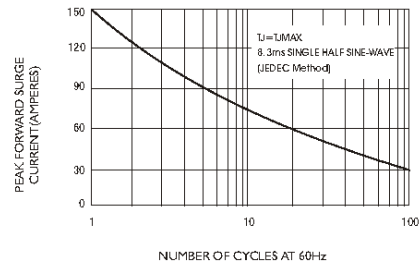


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

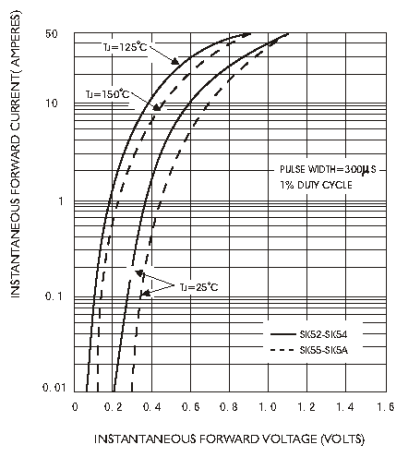


FIG.4-TYPICAL REVERSE CHARACTERISTICS

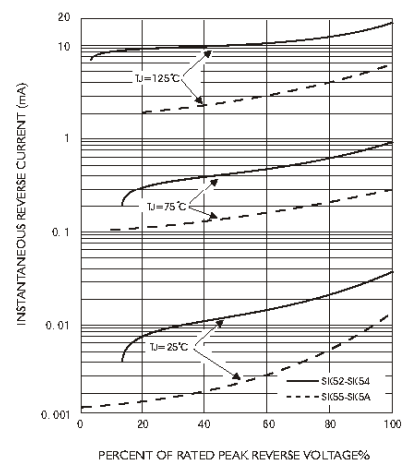


FIG.5-TYPICAL JUNCTION CAPACITANCE

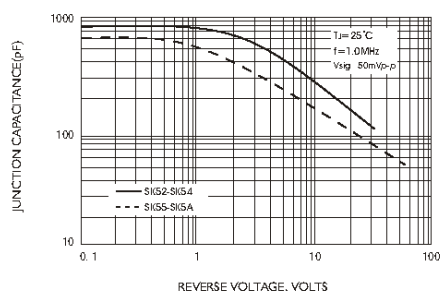


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

