



SK52 thru SK520

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts

Forward Current - 5.0Amperes

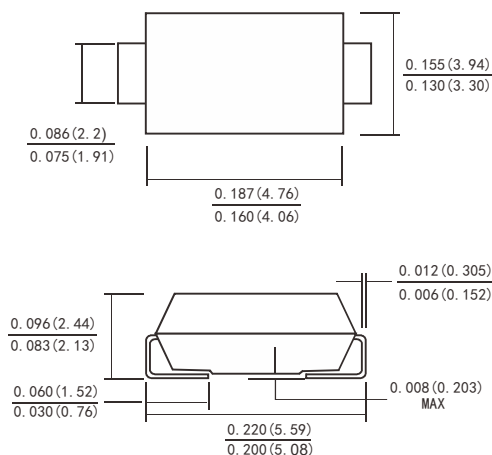
FEATURES

- 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
- High temperature soldering guaranteed:260 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

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
- Weight: 0.007ounce,0.21 gram

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%.)

		Symbols	SK 52	SK 53	SK 54	SK 56	SK 510	SK 515	SK 520	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		VRMS	14	21	28	42	70	105	140	Volts
Maximum DC blocking voltage		VDC	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)		IAV)	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)		IFSM	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		VF	0.55			0.65	0.80	0.85	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA =25 ℃	IR	0.2				0.01			mA
	TA =100℃		20		10					
Typical junction capacitance(Note 3)		CJ	500			400				pF
Typical thermal resistance (Note 2)		ROJA ROJL	55.0 17.0							℃/W
Operating junction temperature range		TJ	-65 to+125				-65 to+175			℃
Storage temperature range		TSTG	-65 to+150							℃

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle

2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas

3. Measured at 1MHz and reverse voltage of 4.0 volts

Rating and Characteristic Curves ($T_A = 25^{\circ}\text{C}$ Unless otherwise noted)
SK52 thru SK520

FIG.1-FORWARD CURRENT DERATING CURVE

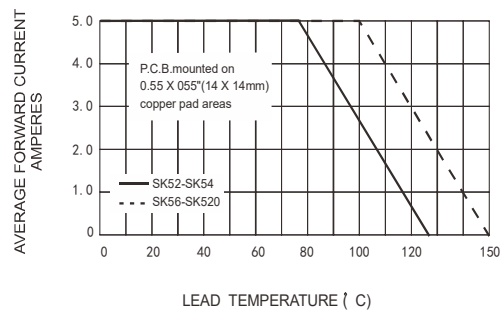


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

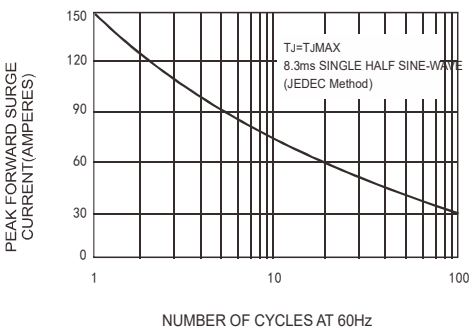


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

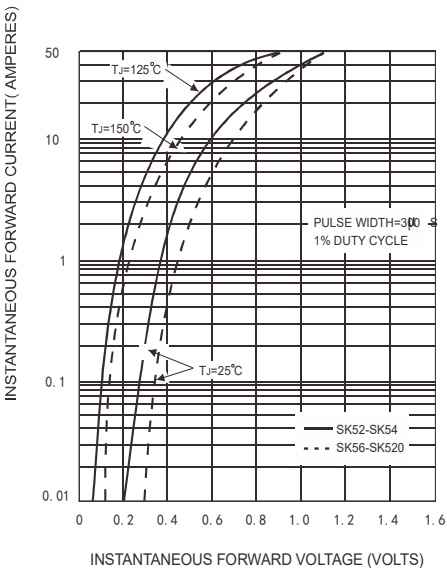


FIG.4-TYPICAL REVERSE CHARACTERISTICS

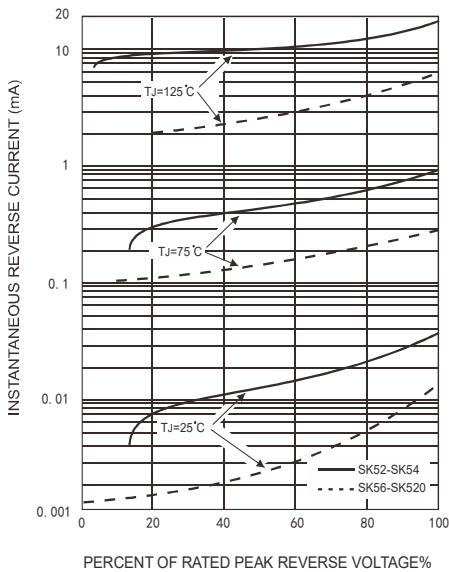


FIG.5-TYPICAL JUNCTION CAPACITANCE

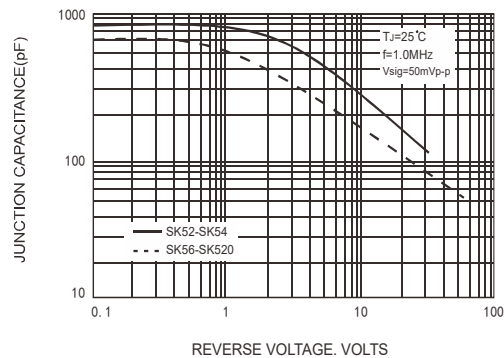


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

