



SK1020 THRU SK10100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 10.0Amperes

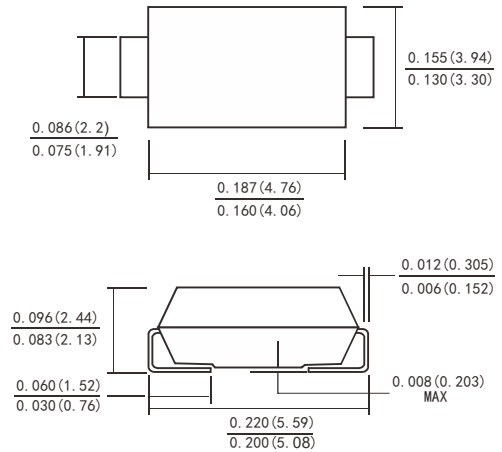
FEATURES

- 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: 0.003ounce,0.09 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 1020	SK 1030	SK 1045	SK 1050	SK 1060	SK 1080	SK 10100	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	45	50	60	80	100	Volts
Maximum RMS voltage		VRMS	14	21	31	35	42	57	71	Volts
Maximum DC blocking voltage		VDC	20	30	45	50	60	80	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)		I(AV)	10.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T _L)		IFSM	200.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V _F	0.55			0.75		0.80	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _A =25 °C	I _R	0.02					0.005		mA
	T _A =100 °C		20					10		
Typical junction capacitance(Note 3)		C _J	500							pF
Typical thermal resistance (Note 2)		R _{θJA} R _{θJL}	55.0 17.0							°C/W
Operating junction temperature range		T _J	-65 to+150							°C
Storage temperature range		T _{STG}	-65 to+150							°C

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 (TA = 25°C Unless otherwise noted)
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FIG.1-FORWARD CURRENT DERATING CURVE

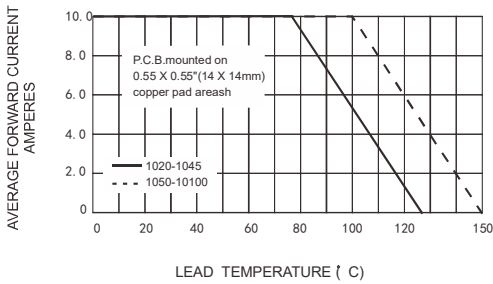


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

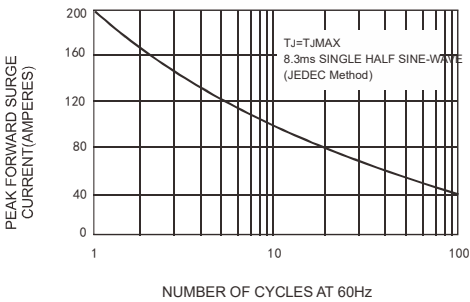


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

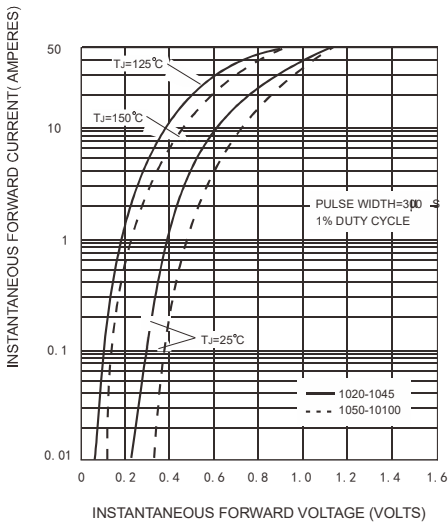


FIG.4-TYPICAL REVERSE CHARACTERISTICS

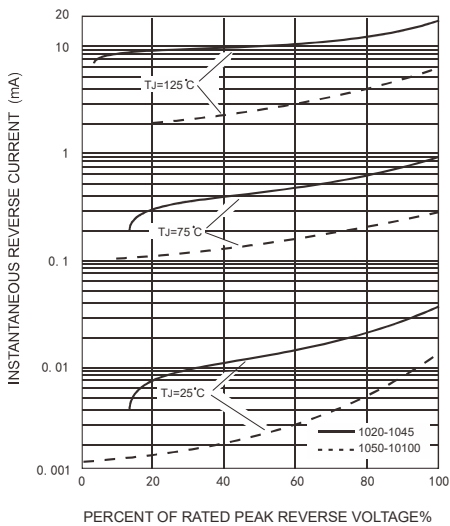


FIG.5-TYPICAL JUNCTION CAPACITANCE

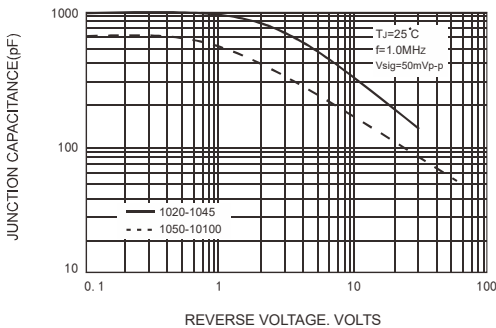


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

