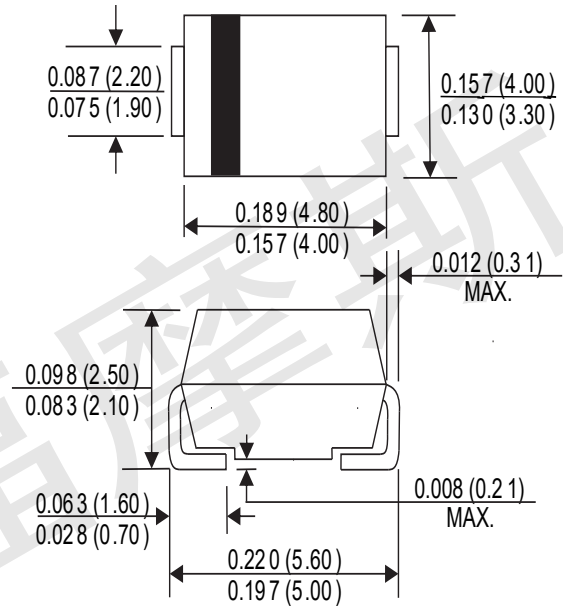


Features And Mechanical Data

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering:260°C MAX at 10 seconds, per JESD 22-B106 or MIL-STD-750,method 2026
- Case: JEDEC SMB molded plastic body



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	SK 82	SK 83	SK 84	SK 85	SK 86	SK 88	SK 810	SK 815	SK 820	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I _F	8.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	125.0									A
Maximum Instantaneous Forward Voltage IF=8A @ 25°C	V _F	0.55			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	0.5 30					0.2 10				mA
Typical Junction Capacitance(NOTE1)	C _j	420			300		260		230	200	pF
Typical Thermal Resistance(NOTE2)	R _{θJa} R _{θJC}	80 50									°C/W
Operating Temperature Range	T _J	-55 to +125					-55 to +150				°C
Storage Temperature Range	T _{STG}	-55 to +150									°C

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

2. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

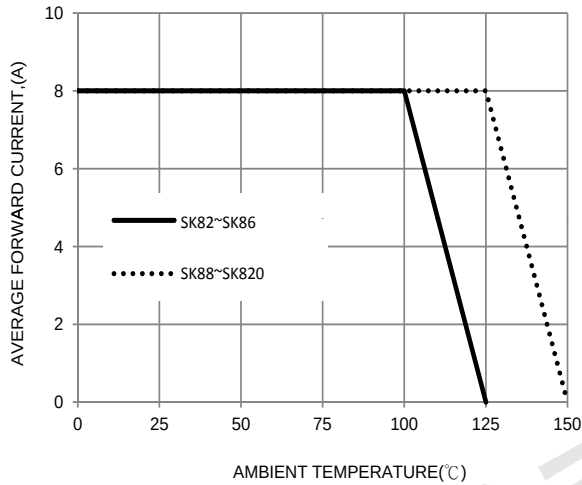


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

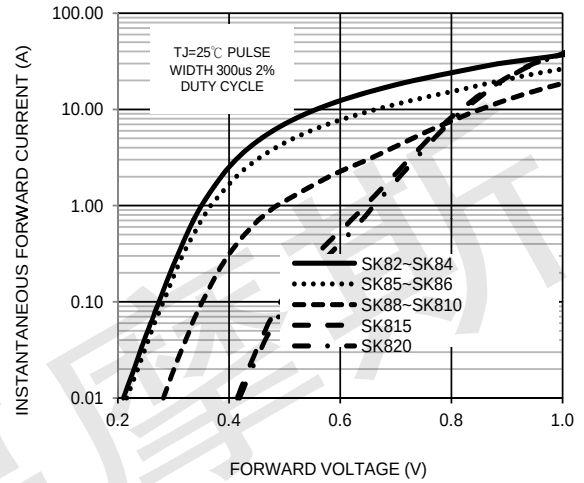


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

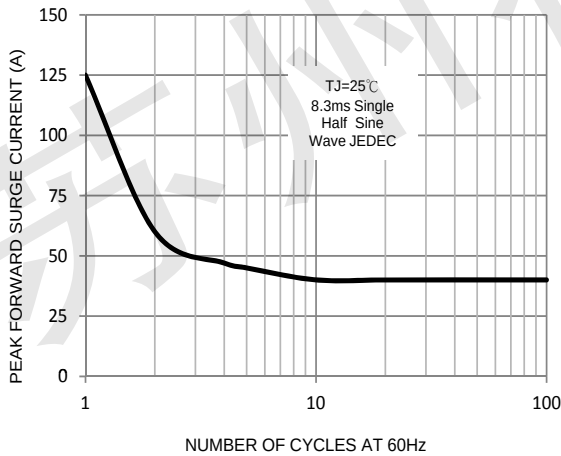


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

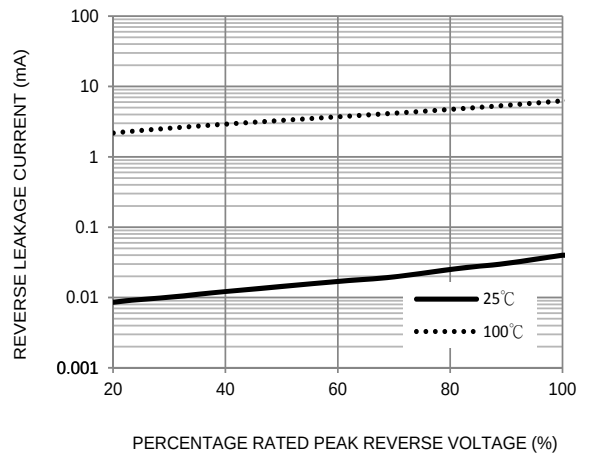


FIG. 5-TYPICAL JUNCTION CAPACITANCE

