

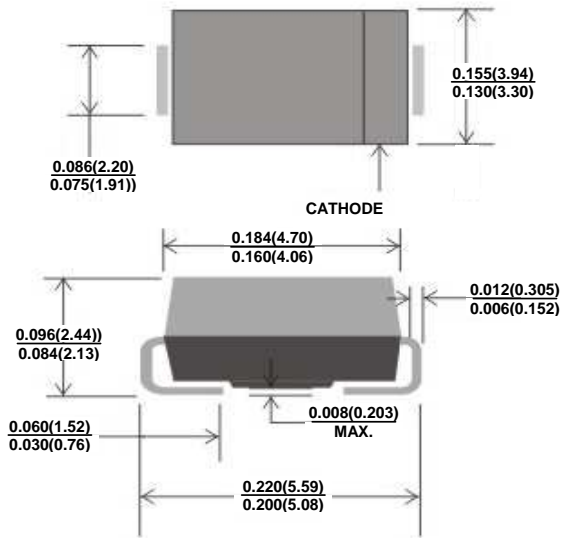


# SK5820 THRU SK5822

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts Forward Current - 3.0 Ampere

### DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

**Case:** JEDEC DO-214AA/SMB, Molded plastic over passivated junction

**Terminals:** Solderable per MIL-STD-750 · Method 2026

**Approx. Weight:** 0.005 ounce, 0.138 grams

**Mounting Position:** Any

**Polarity:** Color band denotes cathode end

### 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 current derate by 20%.

PARAMETER	SYMBOLS	SK5820	SK5822	SK5821	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	Volts
Minimum Reverse Breakdown Voltage at I <sub>R</sub> = 500μA	V <sub>R</sub>	20	30	40	Volts
Average Rectified current at T <sub>J</sub> = 75°C	I(AV)	3			Amp
Non-repetitive Peak Forward Surge Current at 1=8.3ms	I <sub>FSM</sub>	80			Amps
Maximum Forward Voltage	V <sub>F</sub>	0.475 0.850	0.500 0.900	0.525 0.950	Volts
Reverse Leakage Current at V <sub>RRM</sub>	I <sub>R</sub>	2.0			mA
Typical Junction Capacitance (NOTE 1)	C <sub>J</sub>	500			pF
Typical Thermal Resistance (NOTE 2)	R <sub>θJA</sub>	75			°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 ~ +125			°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ +150			°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Mounted with minimum recommended padsize · PCBoard FR4.

3. T<sub>J</sub>=25°C unless otherwise specified.



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

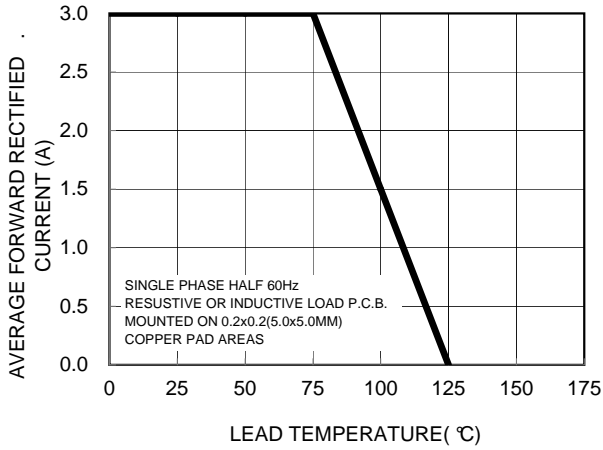


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

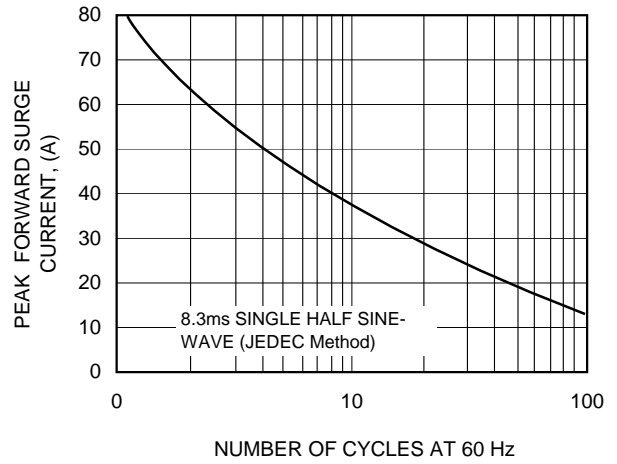


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

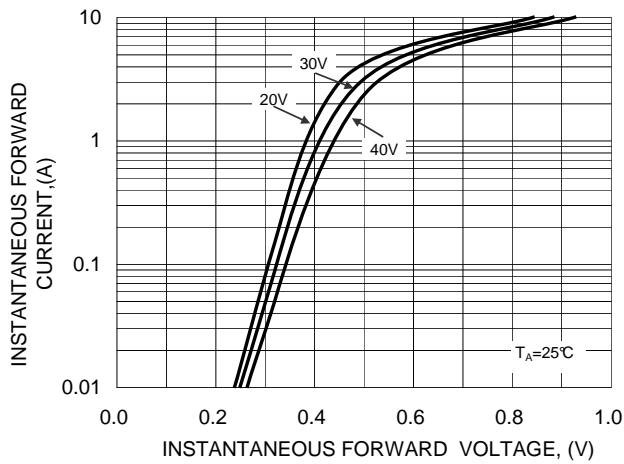


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

