

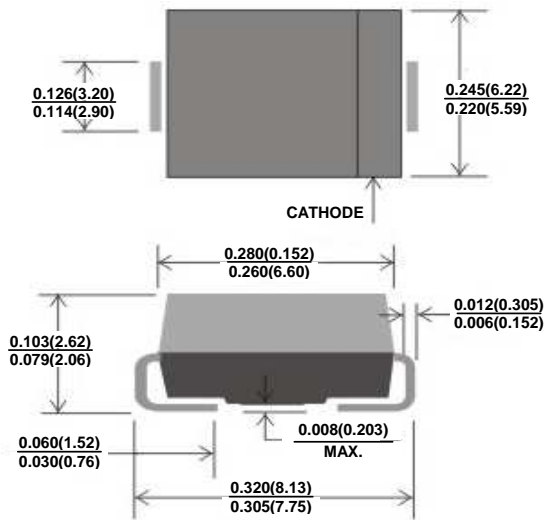


SK5820C THRU SK5822C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

DO-214AB



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-214AB/SMC, Molded plastic over passivated junction

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

Approx. Weight: 0.007 ounce, 0.25grams

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	SK5820C	SK5822C	SK5821C	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Minimum Reverse Breakdown Voltage at = 500 μ A	V_R	20	30	40	Volts
Average Rectified current at $T_J = 75^\circ\text{C}$	$I(AV)$	3			Amp
Non-repetitive Peak Forward Surge Current at 1=8.3ms	I_{FSM}	80			Amps
Maximum Forward Voltage	V_F	0.475 0.850	0.500 0.900	0.525 0.950	Volts
Reverse Leakage Current at V_{RRM}	I_R	2.0			mA
Typical Junction Capacitance (NOTE 1)	C_J	500			pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	55			$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-65 ~ +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150			$^\circ\text{C}$

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

2. Mounted with minimum recommended padsize · PCBoard FR4.

3. $T_J = 25^\circ\text{C}$ unless otherwise specified.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

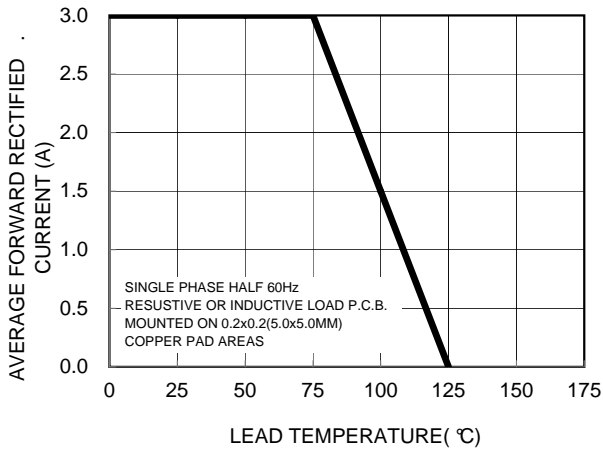


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

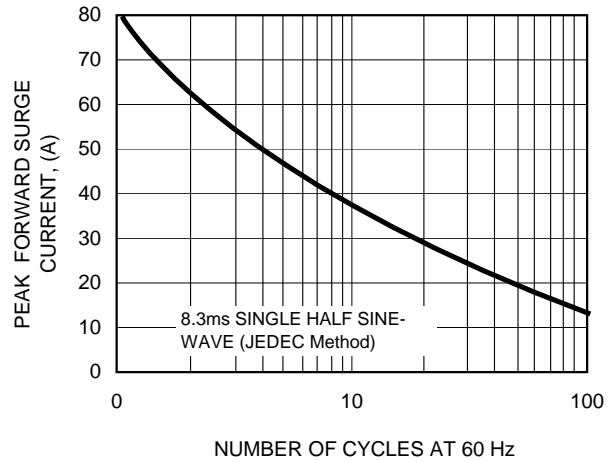


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

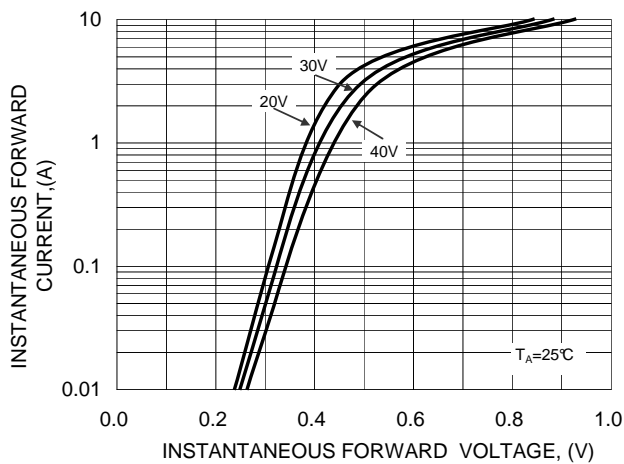


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

