

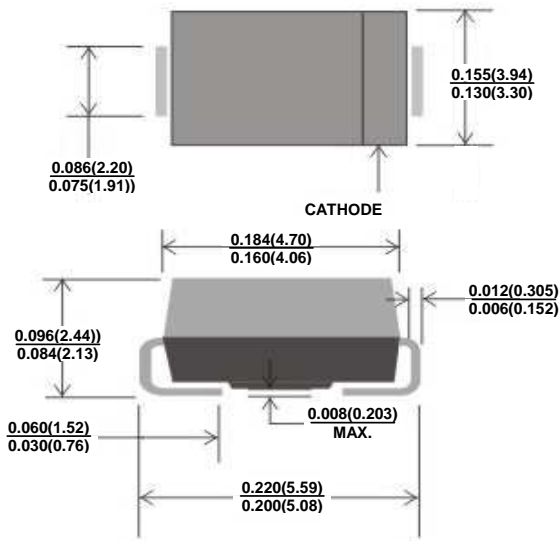


SKL22 THRU SKL24

LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts Forward Current - 2.0 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, high surge capacity
- ◆ High surge capacity
- ◆ High current capacity, low VF
- ◆ For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ In compliance with EU RoHS 2002/95/EC directives

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

Standard packaging: 12mm tape (EIA-481)

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	SKL22	SKL23	SKL24	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	V_R	20	30	40	Volts
Average Rectified current	$I(AV)$	2			Amp
Non-repetitive Peak Forward Surge Current at 1=8.3ms	I_{FSM}	50			Amps
Maximum Forward Voltage at $I_F=2.0A$	V_F	0.38	0.45		Volts
Reverse Leakage Current at V_{RRM}	I_R	0.5			mA
Typical Junction Capacitance (NOTE 1)	C_J	220			pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	75			°C/W
Operating Junction Temperature Range	T_J	-55 ~ +125			°C
Storage Temperature Range	T_{STG}	-50 ~ +150			°C

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

2. Mounted with minimum recommended padsize, PCBBoard FR4.

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



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

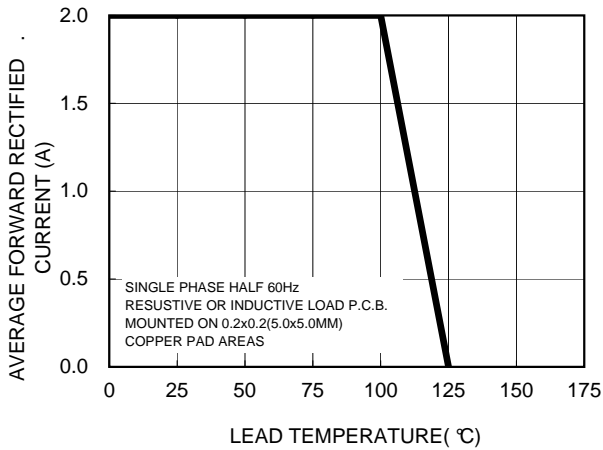


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

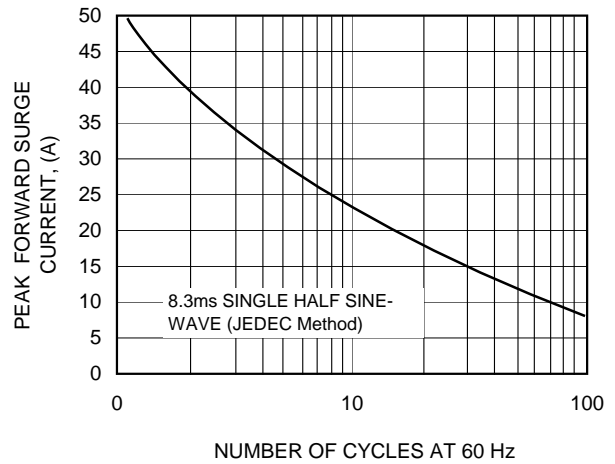


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

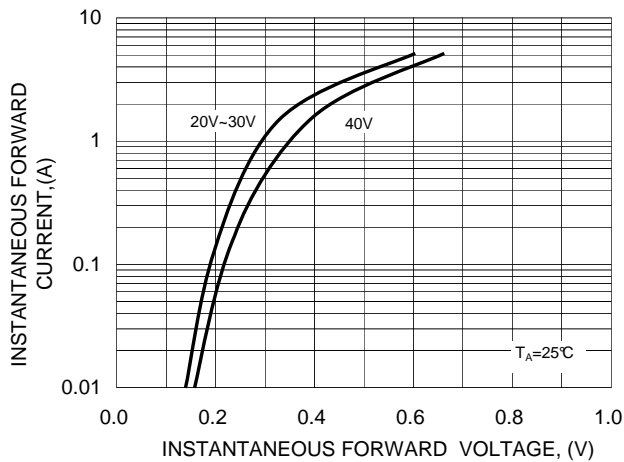


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

