

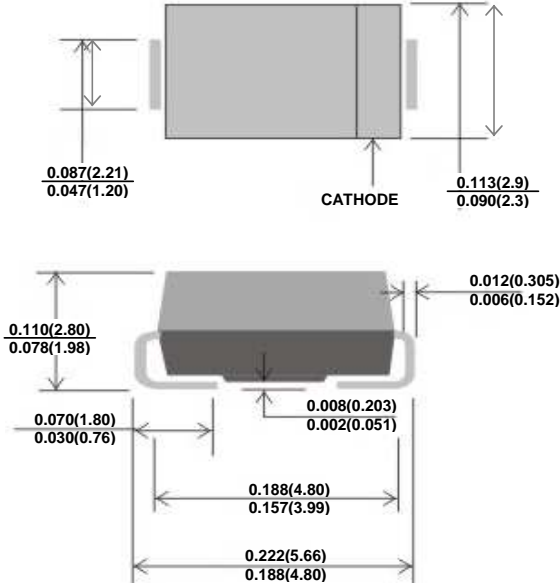


# SSL12 THRU SSL14

## LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts Forward Current - 1.0 Ampere

### DO-214AC



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-214AC/SMA, Molded plastic over passivated junction  
**Terminals:** Solderable per MIL-STD-750 · Method 2026  
**Approx. Weight:** 0.003 ounce, 0.093 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	SSL12	SSL13	SSL14	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	$I(AV)$	1			Amp
Non-repetitive Peak Forward Surge Current at 1=8.3ms	$I_{FSM}$	30			Amps
Maximum Forward Voltage at $I_F=1.0A$	$V_F$	0.38	0.45		Volts
Reverse Leakage Current at $V_{RRM}$	$I_R$	0.5			mA
Typical Junction Capacitance (NOTE 1)	$C_J$	110			pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	120			°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 · PCBoard FR4.
  3.  $T_J=25^\circ C$  unless otherwise specified.



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

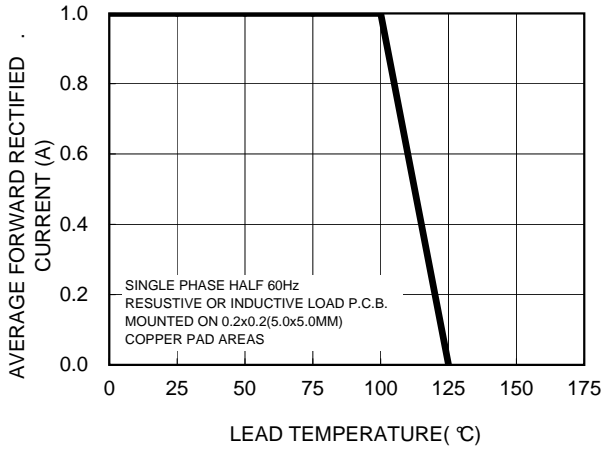


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

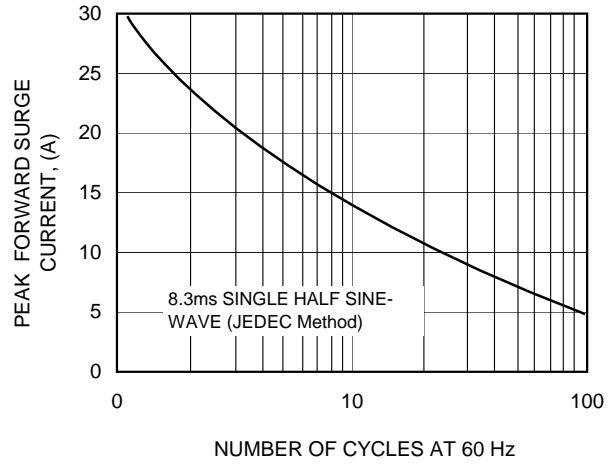


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

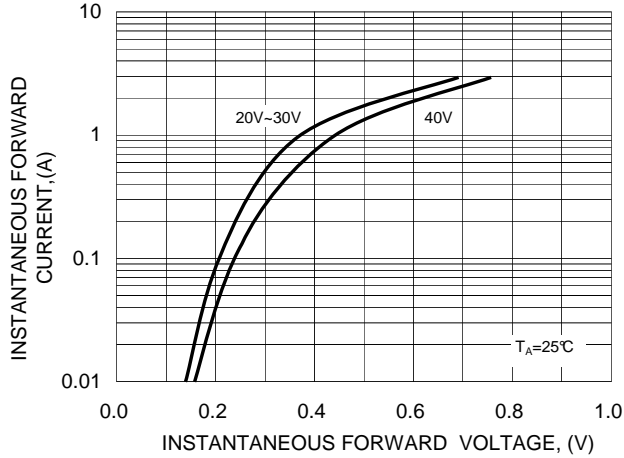


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

