



SL12 thru SL14

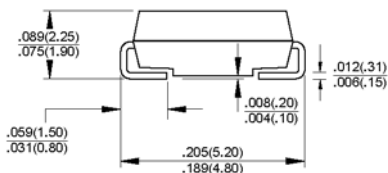
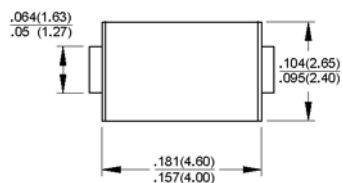
Surface Mount Low V_F Schottky Barrier Rectifiers
Reverse Voltage 20 to 40 Volts Forward Current 1.0 Ampere

Features

- ◆ For surface mounted application
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low forward voltage drop
- ◆ Easy pick and place
- ◆ High surge current capability
- ◆ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ◆ Epitaxial construction
- ◆ High temperature soldering:
250°C / 10 seconds at terminals



DO-214AC (SMA)



Dimensions in inches and (millimeters)

Mechanical Data

- ◆ Cases: Molded plastic
- ◆ Terminals: Solder plated
- ◆ Polarity: Indicated by cathode band
- ◆ Weight: 0.002 ounce, 0.064 gram

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	Symbols	SL12	SL13	SL14	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Maximum average forward rectified current See Fig. 1	I_{AV}	1.0			Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0			Amps
Maximum instantaneous forward voltage @ 1.0A (Note 1)	V_F	0.385	0.385	0.400	Volts
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	2.0 100			mA
Maximum thermal resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	28 88			$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +125			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150			$^\circ\text{C}$

- Notes:**
1. Pulse Test with $PW=300\mu\text{sec}$, 1% Duty Cycle.
 2. Measured on P.C. Board with 0.2 x 0.2" (5.0 x 5.0 mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

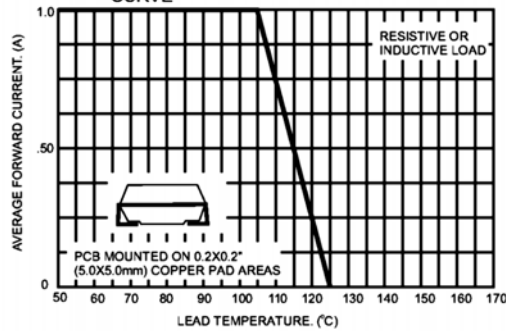


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

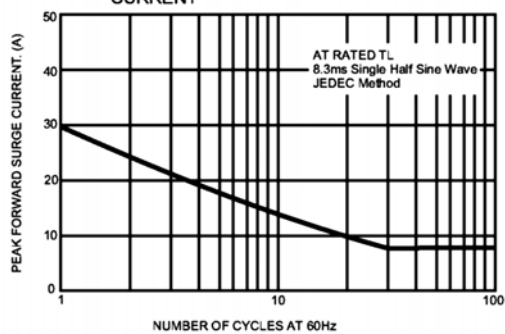


FIG.3- TYPICAL FORWARD CHARACTERISTICS

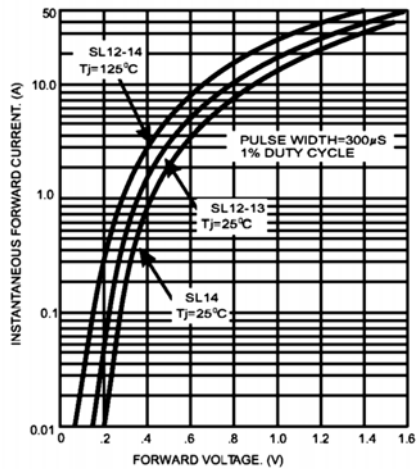


FIG.4- TYPICAL REVERSE CHARACTERISTICS

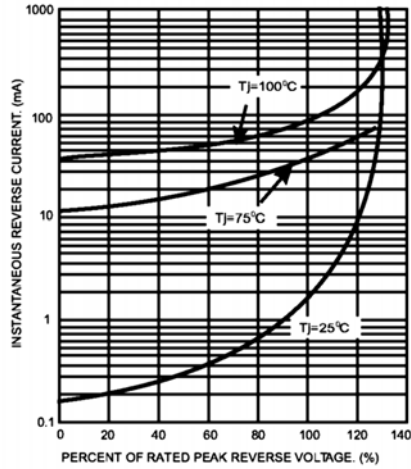


FIG.5- TYPICAL JUNCTION CAPACITANCE

