



SL22 thru SL24

Surface Mount Low V_F Schottky Barrier Rectifiers
Reverse Voltage 20 to 40 Volts Forward Current 2.0 Amperes

Features

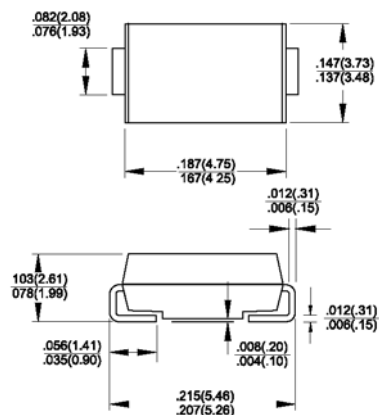
- ◆ For surface mounted application
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low forward voltage drop
- ◆ Easy pick and place
- ◆ High surge current capability
- ◆ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ◆ Epitaxial construction
- ◆ High temperature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

Mechanical Data

- ◆ Cases: Molded plastic
- ◆ Terminals: Solder plated
- ◆ Polarity: Indicated by cathode band
- ◆ Weight: 0.003 ounce, 0.093 gram



DO-214AA (SMB)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbols	SL22	SL23	SL24	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}	2.0			Amps
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0			Amps
Maximum instantaneous forward voltage @ 2.0A (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	3.0 150			mA
Maximum thermal resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	25 75			$^{\circ}\text{C/W}$
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 $PW=300$ usec, 1% Duty Cycle.
 2. Measured on P.C. Board with 0.2×0.2 " (5.0×5.0 mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

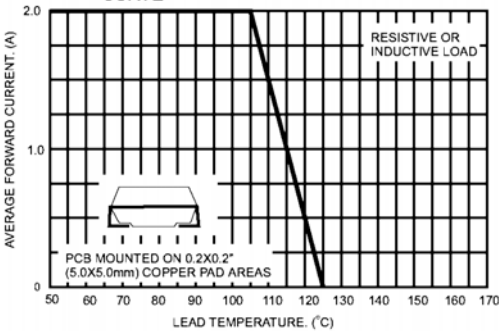


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

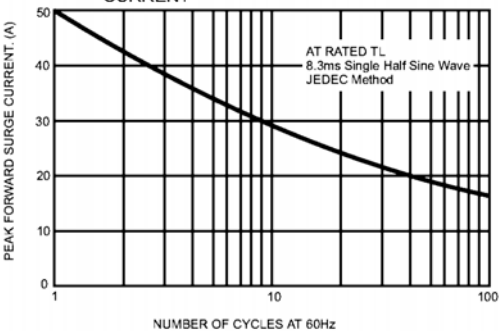


FIG.3- TYPICAL FORWARD CHARACTERISTICS

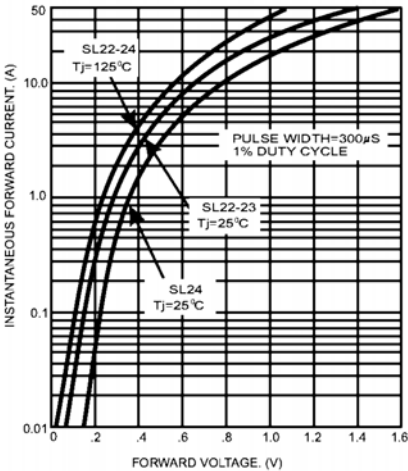


FIG.4- TYPICAL REVERSE CHARACTERISTICS

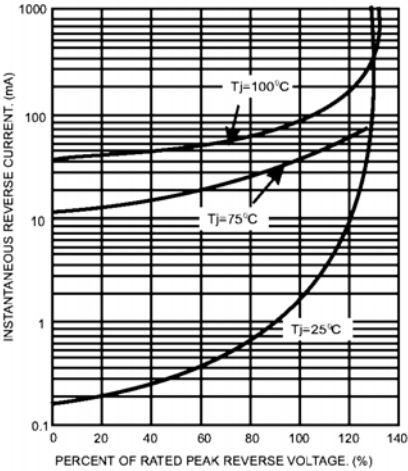


FIG.5- TYPICAL JUNCTION CAPACITANCE

