

# **Schottky Barrier Rectifiers**

#### PRODUCT SUMMARY

Surface Mount Low V<sub>F</sub> 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

## **MECANICAL DATA**

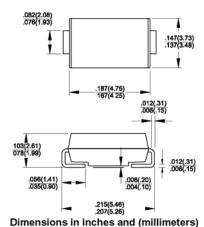
Cases: Molded plastic Terminals: Solder plated

Polarity: Indicated by cathode band Weight: 0.003 ounce, 0.093 gram



Pb-free; RoHS-compliant

#### DO-214AA (SMB)





## **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at  $25^{\circ}$ C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

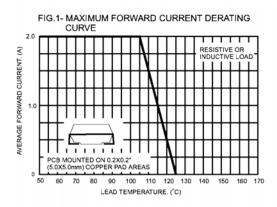
Parameter	Symbols	SL22	SL23	SL24	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	Volts
Maximum average forward rectified current See Fig. 1	I <sub>(AV)</sub>	2.0			Amps
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method )	I <sub>FSM</sub>	50.0			Amps
Maximum instantaneous forward voltage @ 2.0A (Note 1)	V <sub>F</sub>	0.385	0.385	0.400	Volts
Maximum DC reverse current @ T <sub>A</sub> =25°C at rated DC blocking voltage @ T <sub>A</sub> =100°C	I <sub>R</sub>	3.0 150			mA
Maximum thermal resistance (Note 2)	R <sub>eJL</sub> R <sub>eJA</sub>	25 75			°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +125			°C
Storage temperature range	T <sub>STG</sub>	-55 to +150			°C

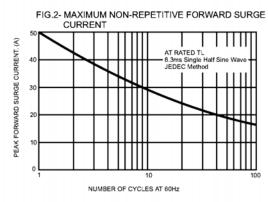
Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle.

<sup>2.</sup> Measured on P.C. Board with 0.2 x 0.2" (5.0 x 5.0 mm) Copper Pad Areas.



### RATINGS AND CHARACTERISTIC CURVES





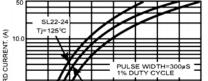
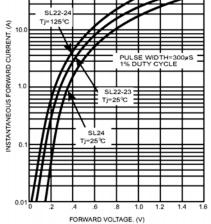


FIG.3- TYPICAL FORWARD CHARACTERISTICS



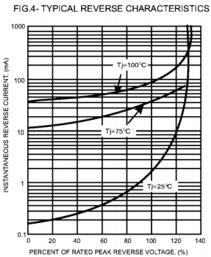
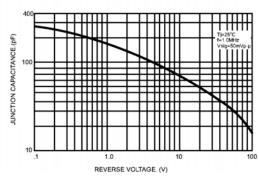


FIG.5- TYPICAL JUNCTION CAPACITANCE



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