

SL22 THRU SL24

SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 to 40 VOLTS

FORWARD CURRENT: 2.0 AMPERE



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capability, low V_F
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, DO-214AA(SMB)

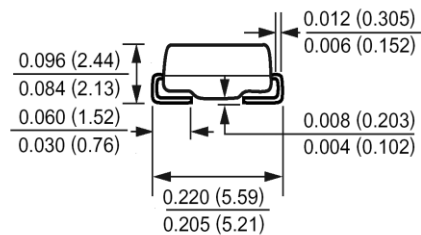
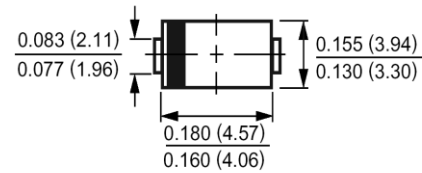
Terminals: Axial leads, solderable per MIL-STD-750, method 2026 guaranteed

Polarity: Color band denotes cathode end

Packaging: 12mm tape per EIA STD RS-481

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, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SL22	SL23	SL24	Units
Maximum Recurrent 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 at T_L (See Fig. 1)	$I_{(AV)}$	2.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50			Amp
Maximum Forward Voltage at 2.0A (Note 1)	V_F	0.38	0.38	0.40	Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	0.5 20			mAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	75			°C/W
	$R_{\theta JL}$	17			
Operating Junction Temperature Range	T_J	-50 to +125			
Storage Temperature Range	T_{stg}	-50 to +150			

NOTES:

1- Pulse test: 300µs pulse width, 1% duty cycle

2- P.C.B. mounted with 0.3 x 0.3" (8.0 x 8.0mm) Copper Pad Areas

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RATINGS AND CHARACTERISTIC CURVES

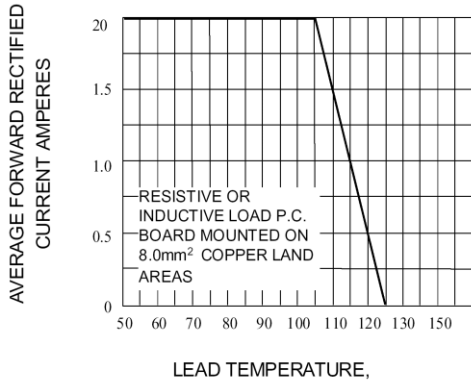


Fig. 1-FORWARD CURRENT DERATING CURVE

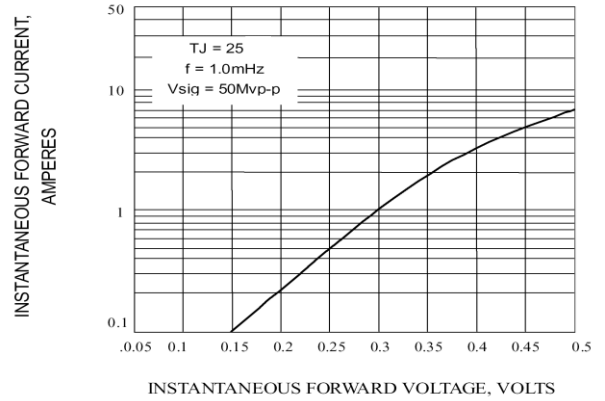


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

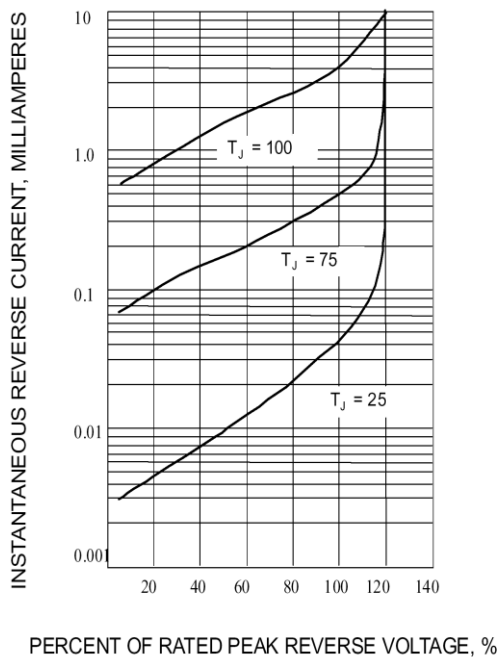


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

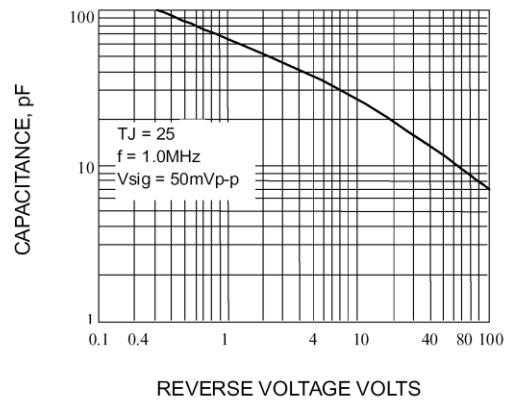


Fig. 4-TYPICAL JUNCTION CAPACITANCE

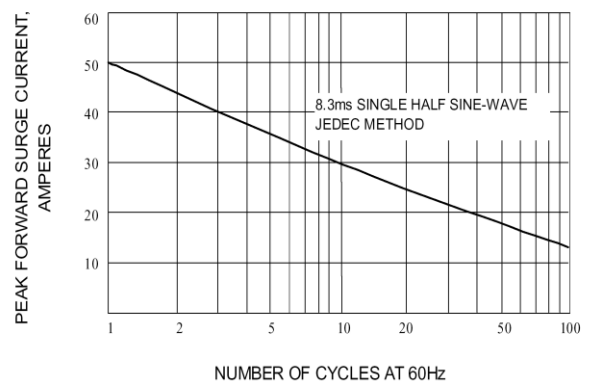


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT