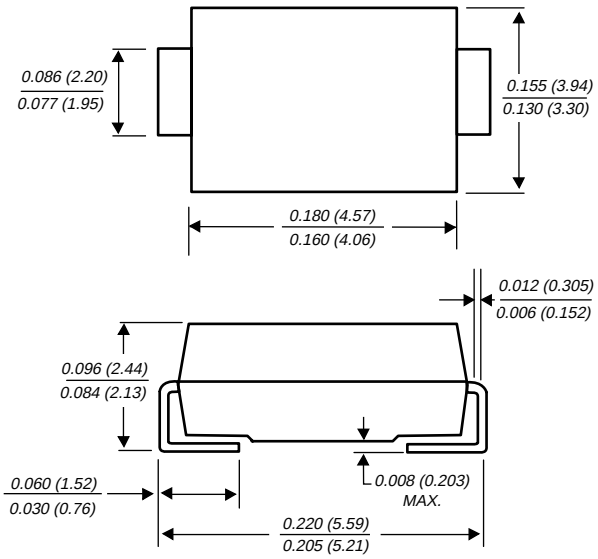
SL22 AND SL23

LOW V_F SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

***Reverse Voltage** - 20 to 30 Volts* ***Forward Current** - 2.0 Amperes*

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*SL22*	*SL23*	*UNITS*
Device marking code		L2	L3	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	Volts
Maximum RMS voltage	V_{RMS}	14	21	Volts
Maximum DC blocking voltage	V_{DC}	20	30	Volts
Maximum average forward rectified current at T_L (SEE FIG. 1)	$I_{(AV)}$	2.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60		Amps
Maximum instantaneous forward voltage at: (NOTE 1) I_F=1.0A, T_A=125°C I_F=1.0A, T_A=25°C I_F=2.0A, T_A=125°C I_F=2.0A, T_A=25°C	V_F	0.280 0.395 0.320 0.440		Volts
Maximum DC reverse current (NOTE 1) T_A=25°C at rated DC blocking voltage T_A=100°C	I_R	0.4 10.0		mA
Maximum thermal resistance (NOTE 2)	$R_{\Theta JA}$ $R_{\Theta JL}$	75 17		°C/W
Operating junction temperature range	T_J	-55 to +125		°C
Storage temperature range	T_{STG}	-55 to +150		°C

NOTES:
(1) Pulse test: 300µs pulse width, 1% duty cycle
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SL22 AND SL23

FIG. 1 - FORWARD CURRENT DERATING CURVE

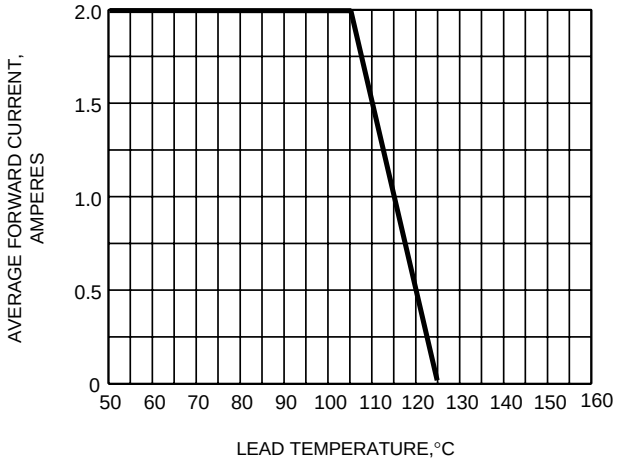


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

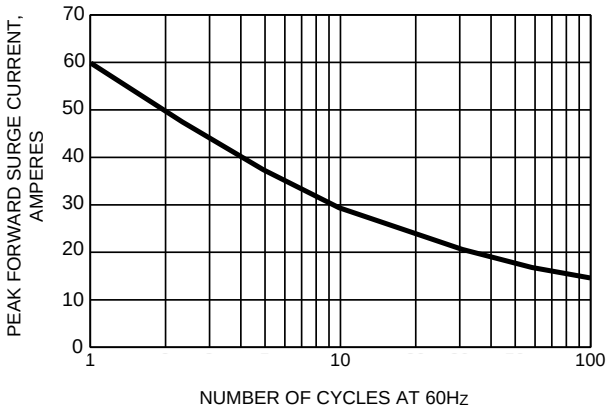


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

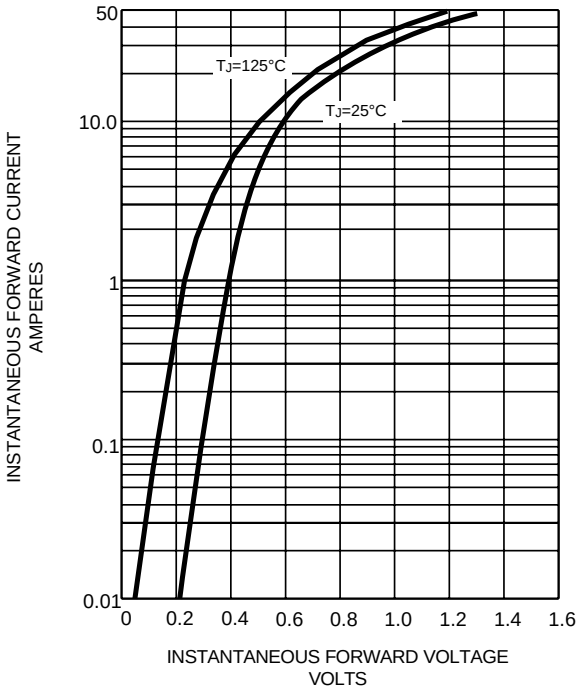


FIG. 4 - TYPICAL REVERSE CURRENT CHARACTERISTICS

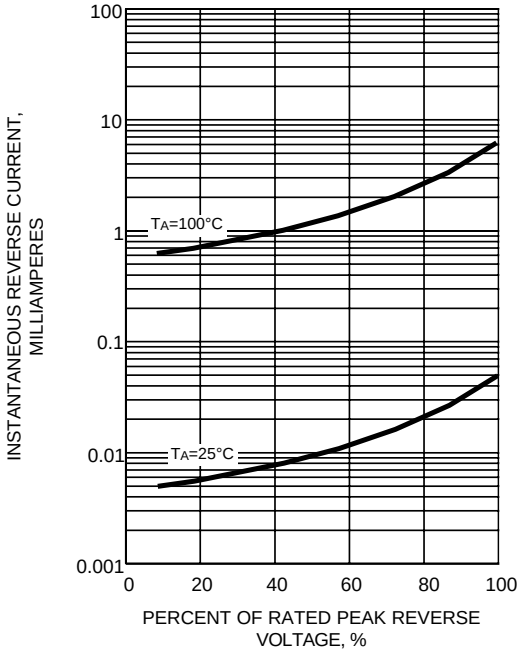
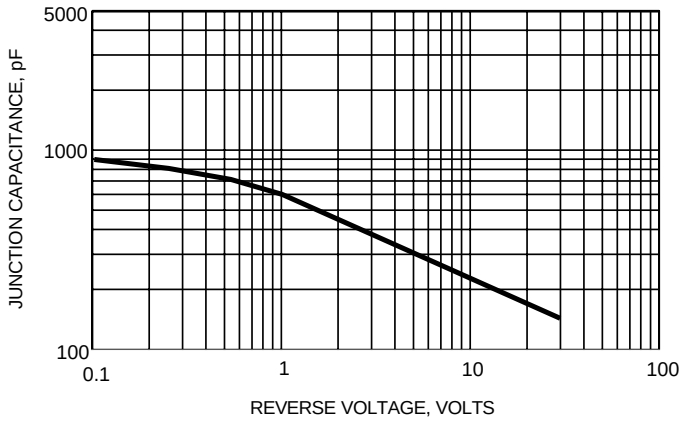


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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