

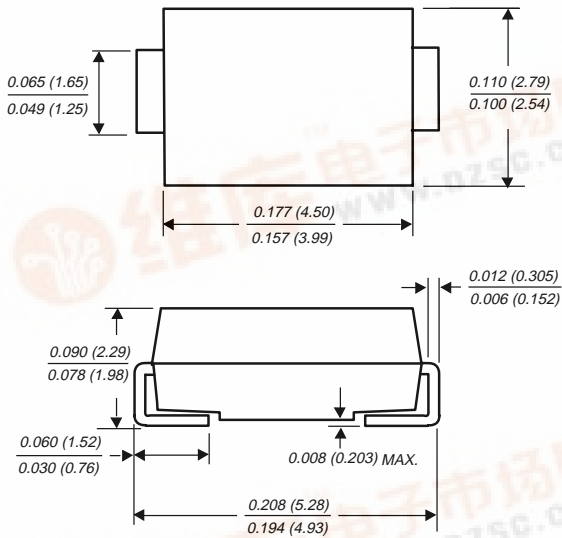
SL12 AND SL13

LOW V_F SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 30 Volts

Forward Current - 1.0 Ampere

DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability classification 94V-0
- ◆ For surface mount 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 on terminals



MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026**Polarity:** Color band denotes cathode end**Weight:** 0.002 ounce 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SL12	SL13	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 (NOTE 2) at T _L (SEE FIG. 1)	I _(AV)	1.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50		Amps
Maximum instantaneous forward voltage at: (NOTE 1) I _F =0.1A, T _A =125°C I _F =0.1A, T _A =25°C I _F =1.0A, T _A =125°C I _F =1.0A, T _A =25°C	V _F	0.230 0.360 0.340 0.445		Volts
Maximum DC reverse current (NOTE 1) T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.2 6.0		mA
Typical thermal resistance (NOTE 2)	R _{θJA} R _{θJL}	88 28		°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 SL12 AND SL13

FIG. 1 - FORWARD CURRENT DERATING CURVE

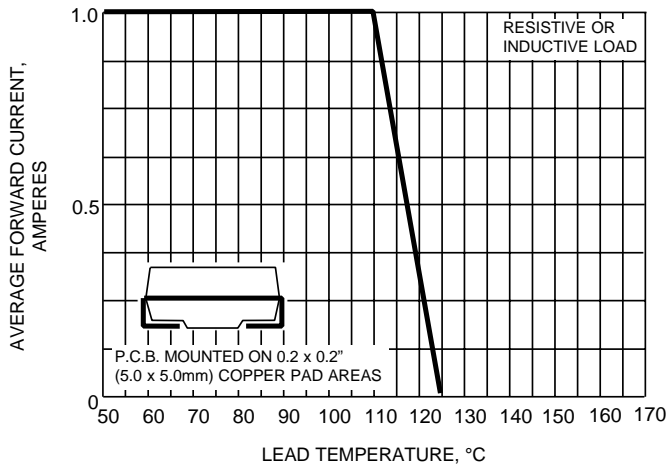


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

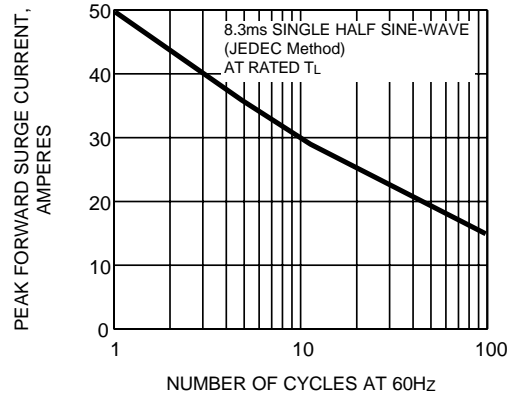


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

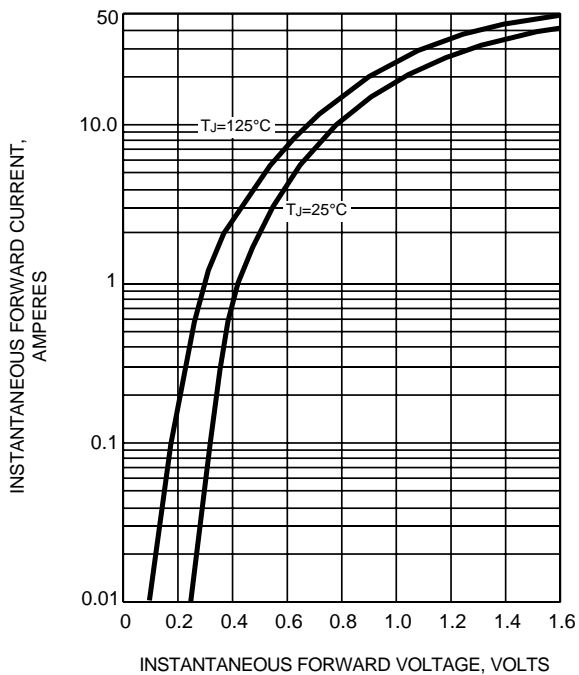


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

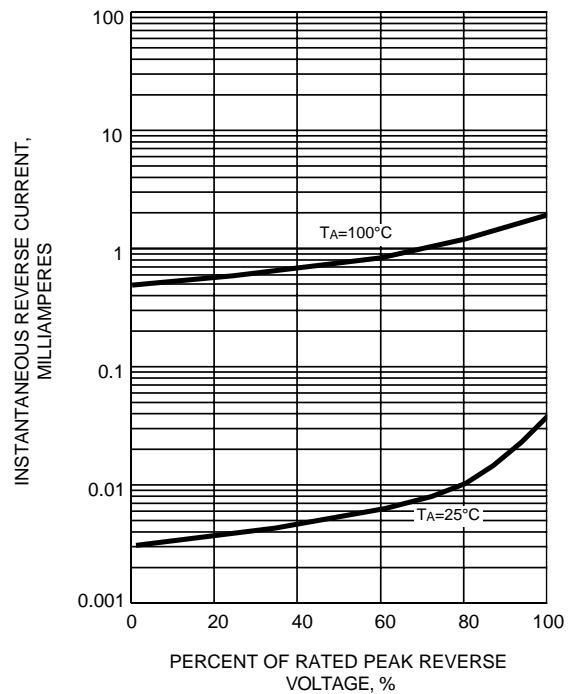


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

