DATA SHEET

SEMICONDUCTOR

SL12 THRU SL14

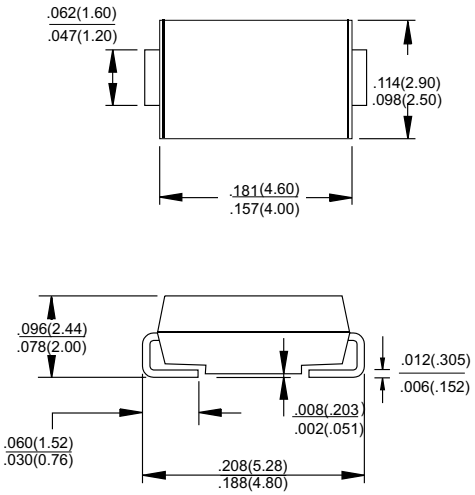
LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 40 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low VF
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: High temperature soldering : 260^{O}C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMA/DO-214AC Unit:inch(mm)



MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Standard packaging: 12mm tape (EIA-481)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25^{O}C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SL12	SL13	SL14	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 TL (See Figure 1)	$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load(JEDEC method)	I_{FSM}	30.0			Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V_F	0.38	0.40		Volts
Maximum DC Reverse Current TA=25 ^{O}C (Note 1) At Rated DC Blocking Voltage TA=100 ^{O}C	I_R	1.0 20.0			mA
Maximum Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	28 88			^{O}C /W
Operating Junction Temperature Range	T_J	-55 to +150			^{O}C
Storage Temperature Range	T_{STG}	-55 to +150			^{O}C
Marking Code		**SL12**	**SL13**	**SL14**	

NOTES:

1. Pulse Test with PW=300 sec, 1% Duty Cycle.
2. Mounted on P.C.Board with 5.0mm2 (.013mm thick) copper pad areas.

DEVICE CHARACTERISTICS

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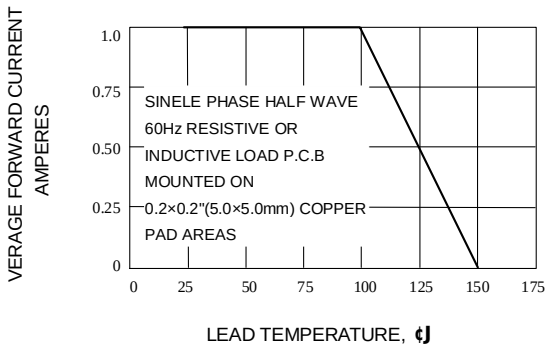

Fig. 1-FORWARD CURRENT DERATING CURVEE

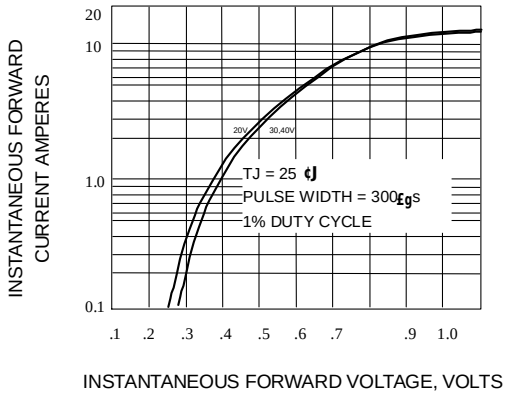

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

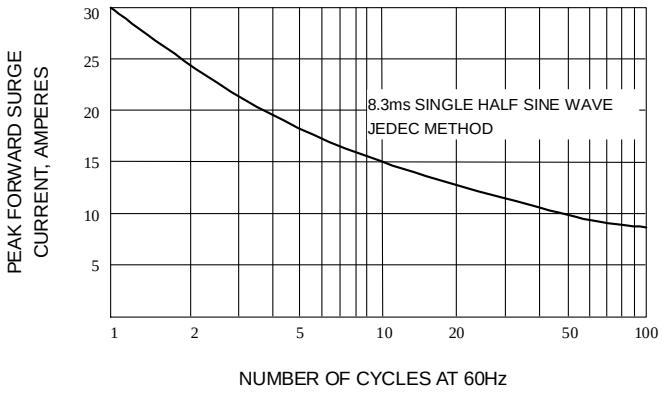

Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

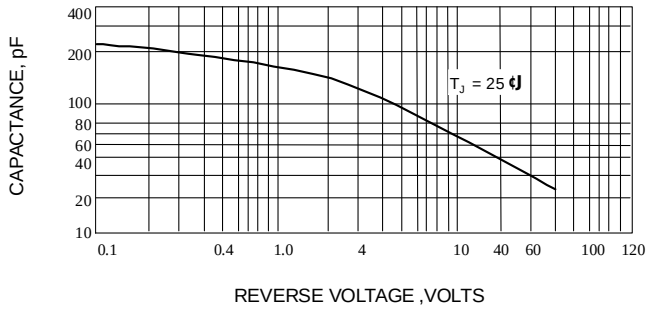

Fig. 4-TYPICAL JUNCTION CAPACITANCE