



DATA SHEET

SEMICONDUCTOR

SL12 THRU SL14

LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

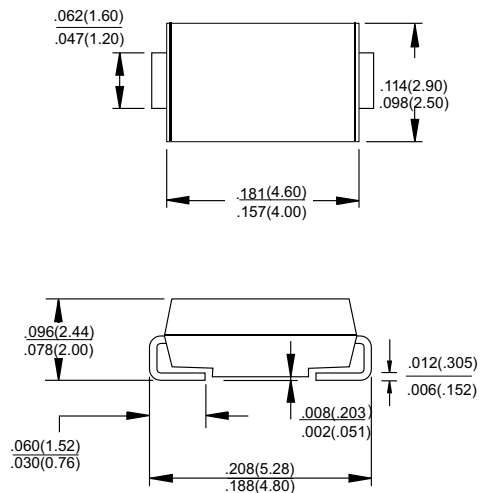


VOLTAGE - 20 to 40 Volts CURRENT - 1.0 Ampere

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°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°C ambient temperature unless otherwise specified.
Resistive or inductive load.

	SYMBOLS	SL12	SL13	SL14	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	VDC	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)	IFSM	30.0			Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	VF	0.38	0.40		Volts
Maximum DC Reverse Current TA=25°C (Note 1) At Rated DC Blocking Voltage TA=100°C	IR	1.0 20.0			mA
Maximum Thermal Resistance (Note 2)	RθJL RθJA	28 88			°C /W
Operating Junction Temperature Range	TJ	-55 to +150			°C
Storage Temperature Range	TSTG	-55 to +150			°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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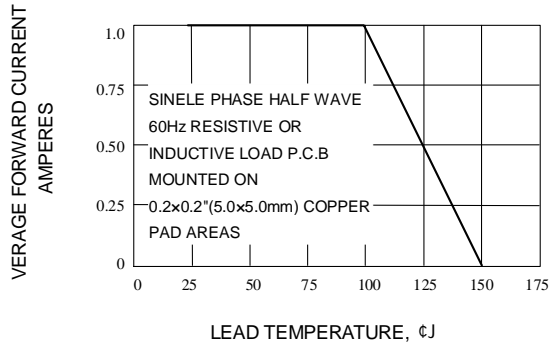


Fig. 1-FORWARD CURRENT DERATING CURVEE

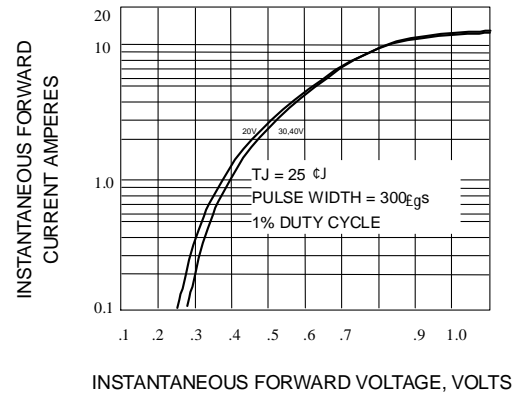


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

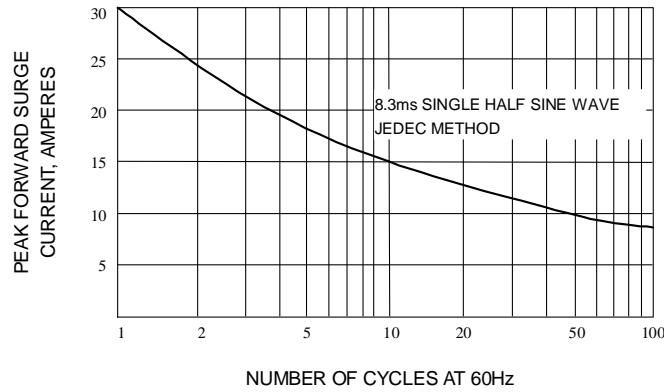


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

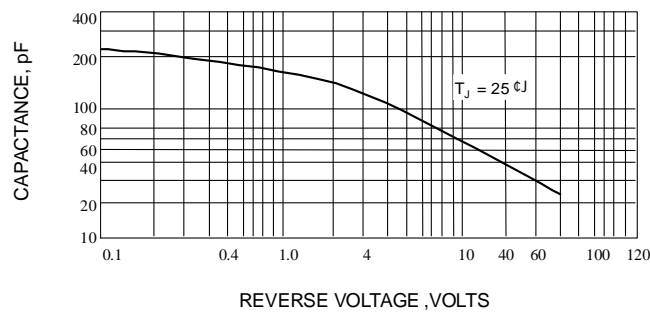


Fig. 4-TYPICAL JUNCTION CAPACITANCE