DATA SHEET

SEMICONDUCTOR

S12 THRU S110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE- 20 to 100 Volts CURRENT- 1.0 Amperes

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 surge capacity
- High current capacity ,low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed: 260°C /10 seconds at terminals
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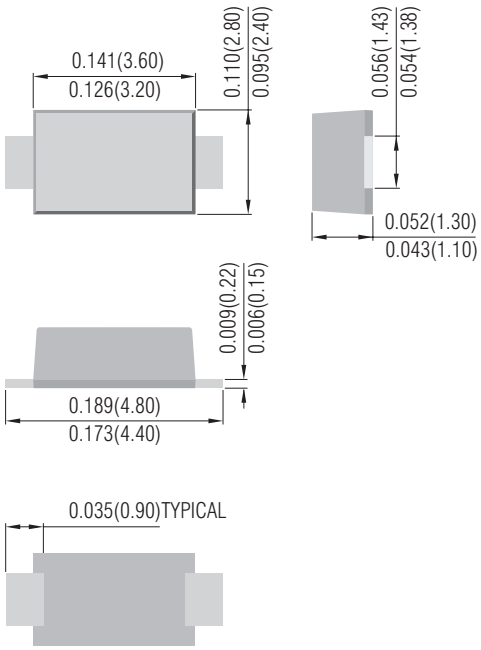
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMF Unit:inch(mm)



MECHANICAL DATA

- Case: SMF molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 12mm tape (EIA-481)
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	S12	S13	S14	S15	S16	S18	S19	S110	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	64	71	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current at TL (See figure 1)	$I_{(AV)}$	1.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0								A
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V_F	0.50			0.70		0.85			V
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	I_R	0.5 20.0								mA
Maximum Thermal Resistance(Note 2)	RθJL RθJA	28.0 88.0								°C/W
Operating Temperature Range	T_J	-55 to +150								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

NOTES:

A.Pulse Test with PW =300μsec, 2% Duty Cycle.

B.Mounted on P.C. Board with 5.0mm2 (.013mm thick) copper pad areas.

DEVICE CHARACTERISTICS

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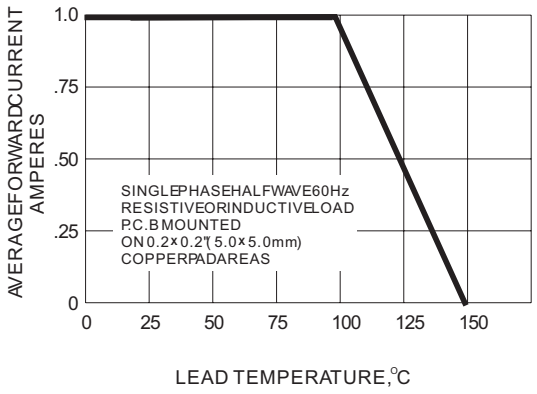

Fig.1-FORWARD CURRENT DERATING CURVE

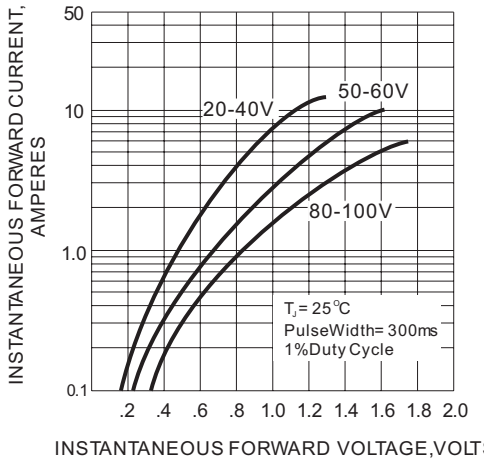

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

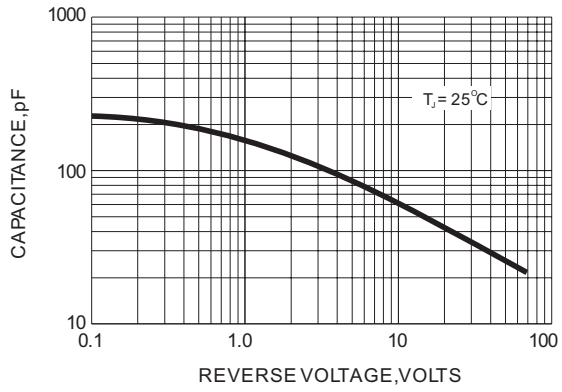

Fig.3-TYPICAL JUNCTION CAPACITANCE

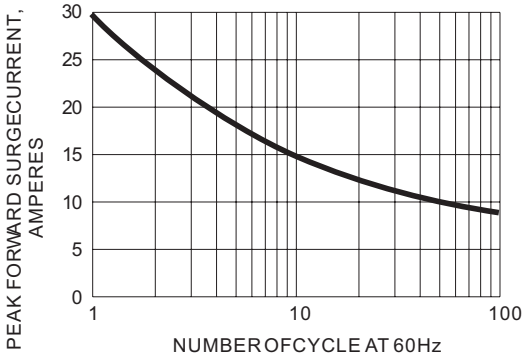

Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT