



DATA SHEET

SEMICONDUCTOR

S12 THRU S110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



VOLTAGE- 20 to 100 Volts CURRENT- 1.0 Amperes

FEATURES

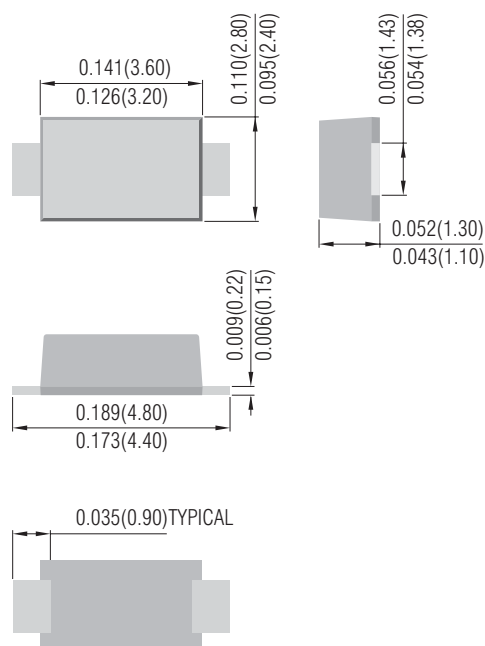
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity, 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

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)

SMF

Unit: inch(mm)



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	VRRM	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	56	64	71	V
Maximum DC Blocking Voltage	VDC	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)	IFSM	30.0								A
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	VF	0.50			0.70		0.85			V
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	IR	0.5 20.0								mA
Maximum Thermal Resistance(Note 2)	RθJL RθJA	28.0 88.0								°C/W
Operating Temperature Range	TJ	-55 to +150								°C
Storage Temperature Range	TSTG	-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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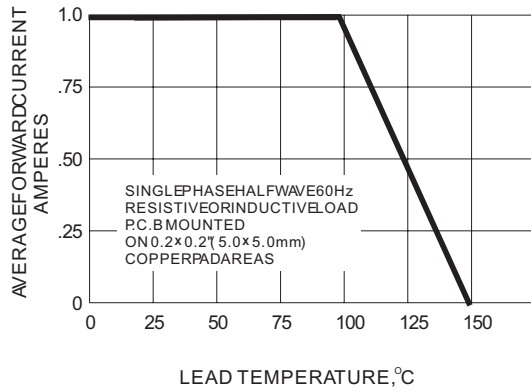


Fig.1-FORWARD CURRENT DERATING CURVE

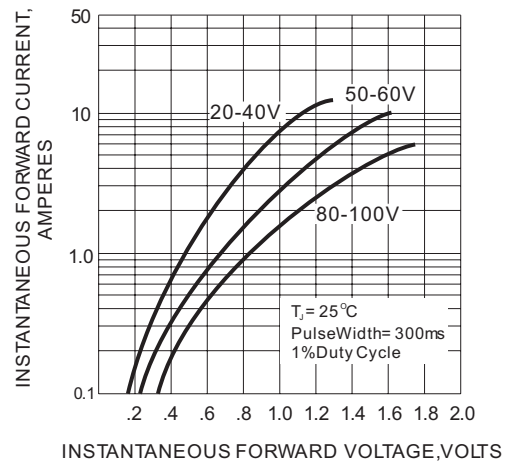


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

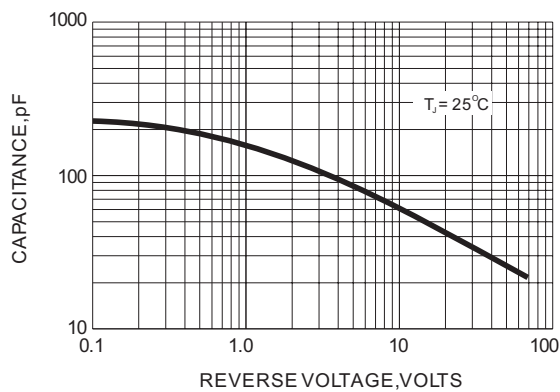


Fig.3-TYPICAL JUNCTION CAPACITANCE

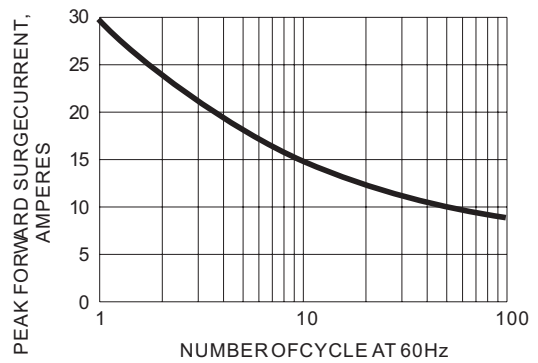


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT