TRANSYS ELECTRONICS LIMITED

SS12 THRU S100

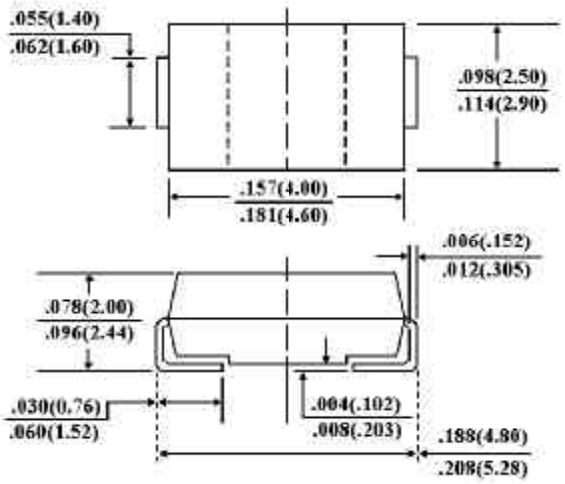
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 100 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted app cations
- Low profile package
- Built-in strain relief
- Metal to s icon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage high frequency inverters, free whee ng, and polarity protection applications
- High temperature soldering: 260 ¢J/10 seconds at terminals

SMA/DO-214AC



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color bank denotes cathode
Standard packaging: 12mm tape (EIA-481)
Weight: 0.002 ounce, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.
Resistive or inductive load.

	SYMBOLS	SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	64	71	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current at T_L (See Figure 1)	$I_{(AV)}$	1.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	30.0								Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V_F	0.5			0.70		0.85			Volts
Maximum DC Reverse Current T_A=25 ¢J(Note 1) At Rated DC Blocking Voltage T_A=100 ¢J	I_R	0.5 20.0								mA
Maximum Thermal Resistance (Note 2)	R £KJL R £KJA	28 88								¢J/W
Operating Junction Temperature Range	T_J	-50 to +125								¢J
Storage Temperature Range	T_{STG}	-50 to +150								¢J

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

RATING AND CHARACTERISTIC CURVES

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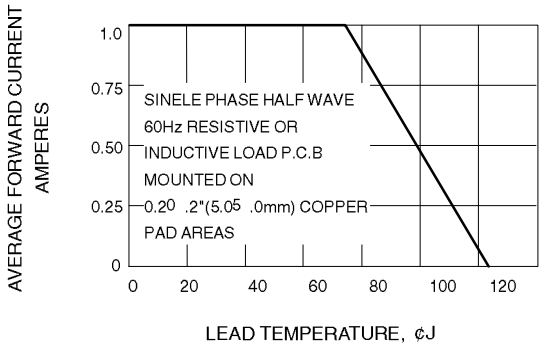

Fig. 1-FORWARD CURRENT DERATING CURVEE

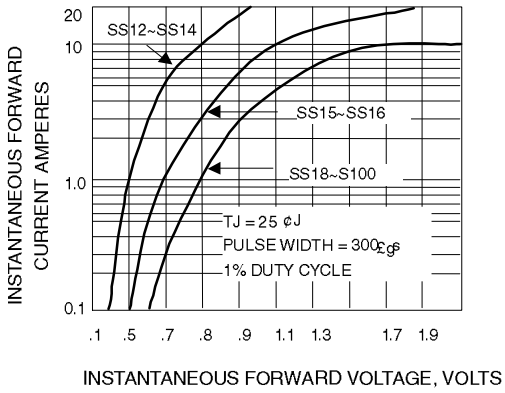

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

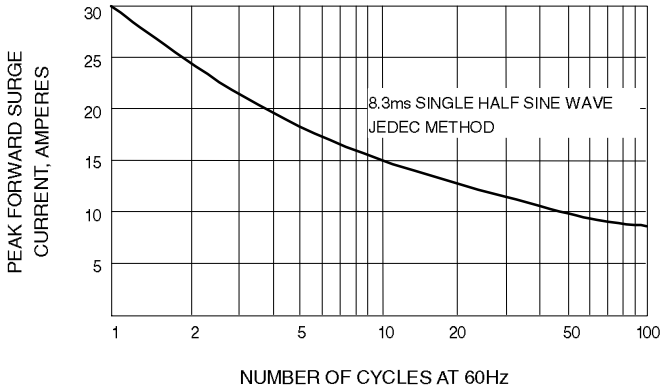

Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

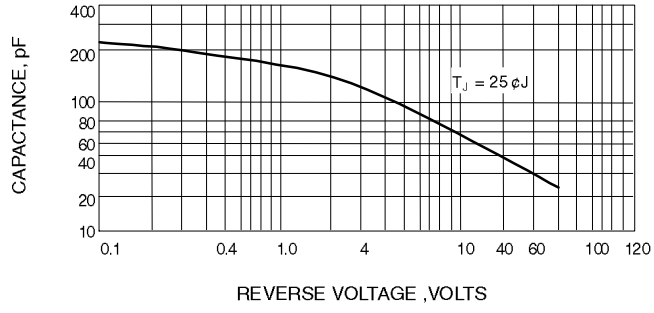

Fig. 4-TYPICAL JUNCTION CAPACITANCE