

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 applications
- Low profile package
- Built-in strain relief
- Metal to silicon 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 wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

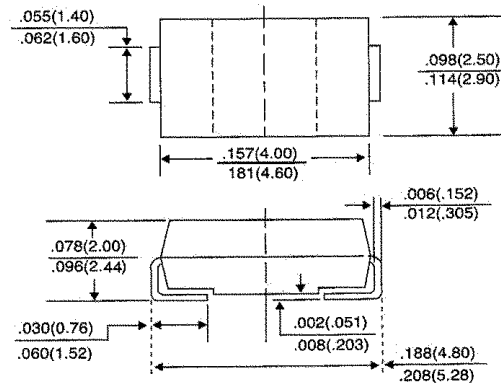
Terminals: Solder plated solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard Packaging: 12mm tape (EIA-481)

Weight: 0.002 ounces 0.064 gram

SMA/DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C 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	0.50			0.70		0.85			Volts
Maximum DC Reverse Current (NOTE 1) T _A = 25°C at Rated DC Blocking Voltage T _A = 100°C	I _R				0.5 20.0					mA
Maximum Thermal Resistance (NOTE 2)	R _{θJL} R _{θJA}				28 88					°C/W
Operating Junction Temperature Range	T _J	-50 to +125								°C
Storage Temperature Range	T _{STG}	-50 to +150								°C

NOTES:

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

RATING AND CHARACTERISTIC CURVES SS12 THRU S100

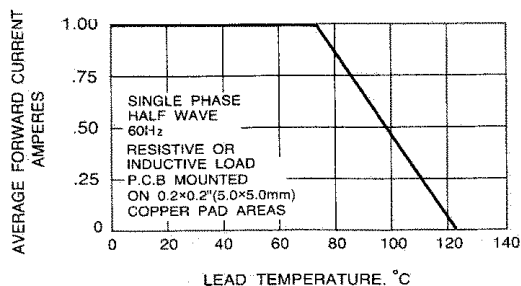


Fig. 1 - FORWARD CURRENT DERATING CURVE

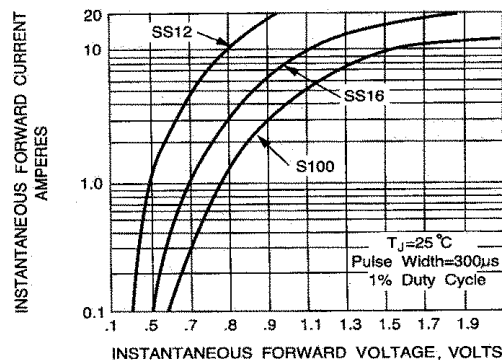


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

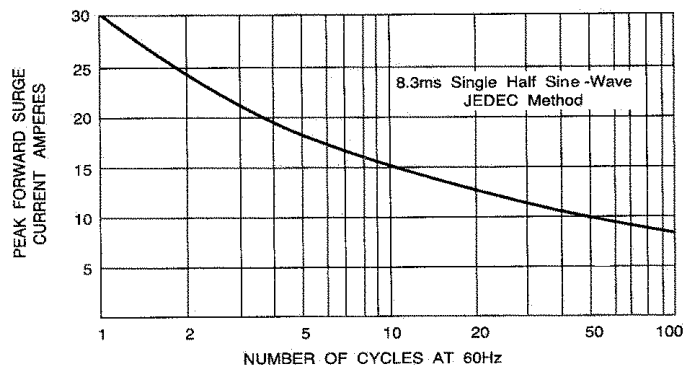


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

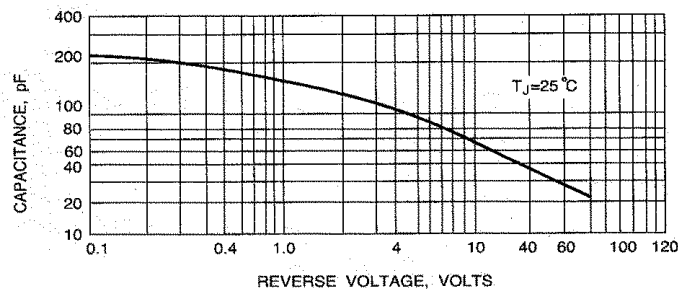


Fig. 4 - TYPICAL JUNCTION CAPACITANCE