

DATA SHEET

SS12E~SS16E

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20 to 60 Volts **CURRENT** 1.0 Amperes

SMA/DO-214AC

Unit: inch (mm)

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 V_F
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request
- ESD Passed devices : Air mode 15KV ,human body mode 8KV

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

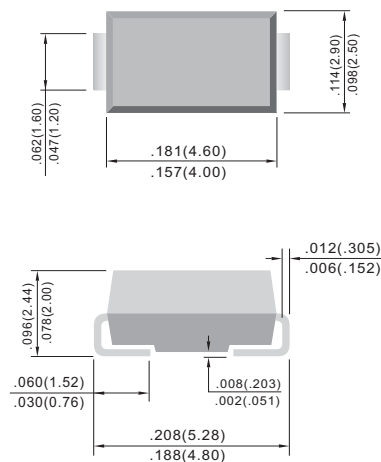
Terminals: Solder plated, solderable per MIL-STD-202G,

Method 208

Polarity: Color band denotes positive end (cathode)

Standard packaging: 12mm tape (EIA-481)

Weight: 0.002 ounce, 0.064 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

PARAMETER	SYMBOL	SS12E	SS13E	SS14E	SS15E	SS16E	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T _L =75°C	I _{AV}	1					A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30					A
Maximum Forward Voltage at 1.0A	V _F	0.5			0.7		V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=100°C	I _R	0.5 50					mA
Maximunl Thermal Resisance	R _{θJL} R _{θJA}	28 88					°C / W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-50 to +125					°C

NOTES:

A. Pulse Test with $PW = 300\mu sec$, 1% Duty Cycle.

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

RATING AND CHARACTERISTIC CURVES

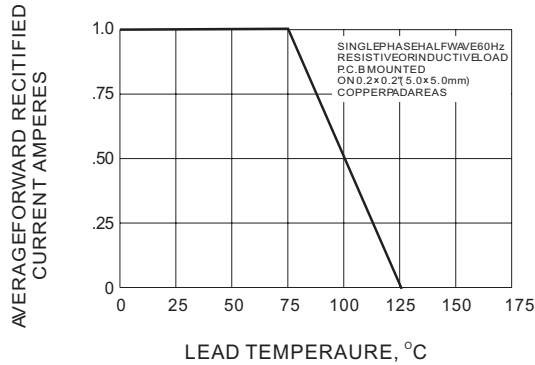


Fig.1- FORWARD CURRENT DERATING CURVE

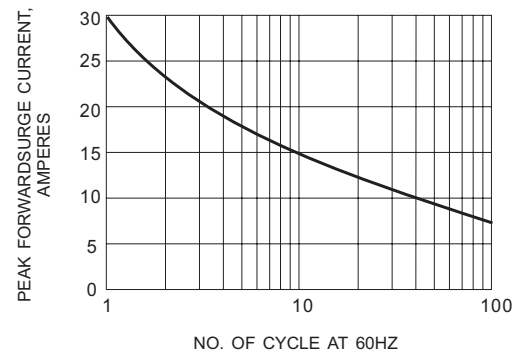


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

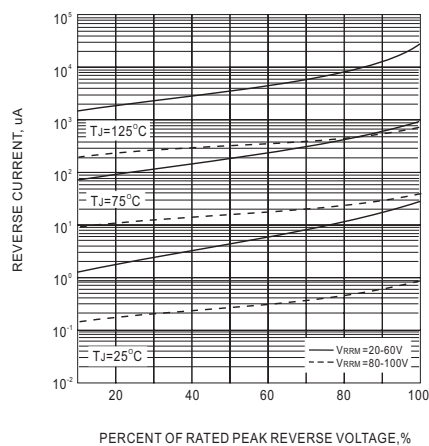


Fig.3- TYPICAL REVERSE CHARACTERISTIC

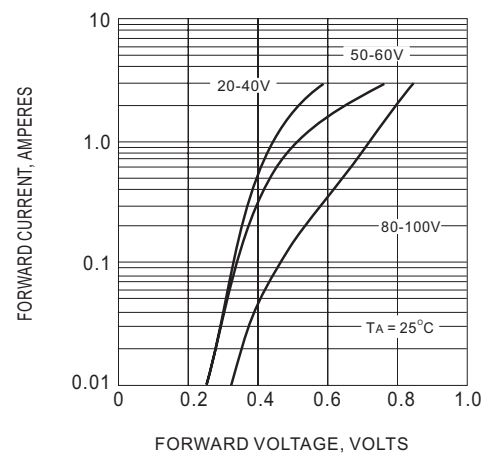


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC