



DATA SHEET

SS12W~S100W

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20 to 100 Volts **CURRENT** 1.0 Ampere

SMA/DO-214AC

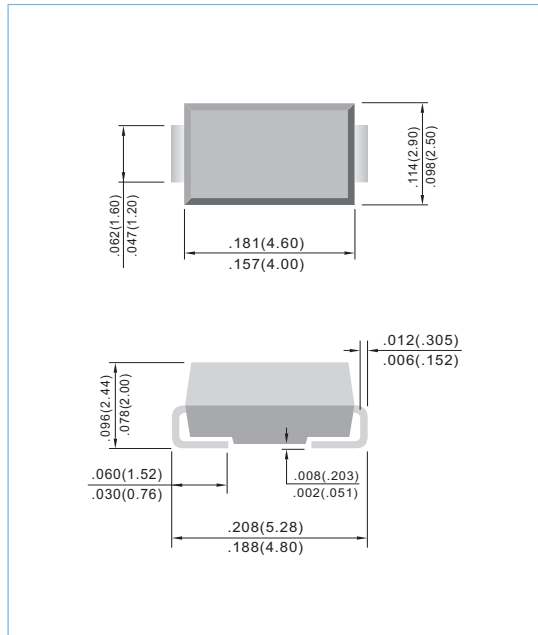
Unit: inch (mm)

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 V_F
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 99% Sn above

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	SS12W	SS13W	SS14W	SS15W	SS16W	SS18W	S100W	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c = 75$	I_{AV}	1.0							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 (Note 1)	V_F	0.50			0.70		0.85		V
Maximum DC Reverse Current $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	0.5 50				0.5 20			mA
Typical Thermal Resistance (Note 2)	R_{QJL} R_{QJA}	28 88							/ W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 50 to + 125							

Notes :

1. Pulse test with PW = 300usec, 1% Duty Cycle.
2. Mounted on P.C. Board with 5.0mm² (.013mm thick) copper pad areas.



RATING AND CHARACTERISTIC CURVES

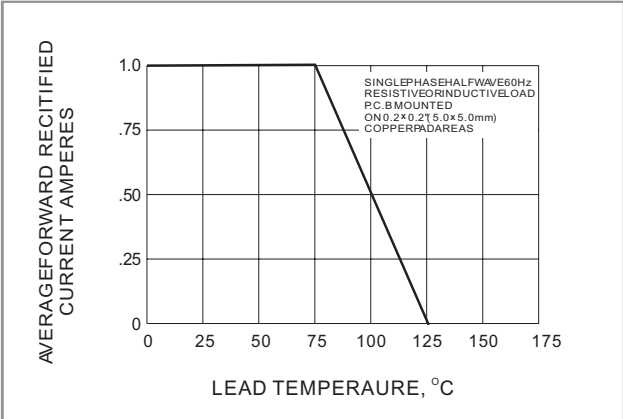


Fig.1- FORWARD CURRENT DERATING CURVE

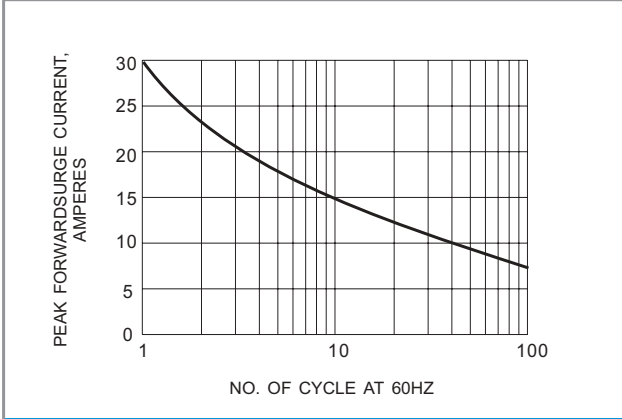


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

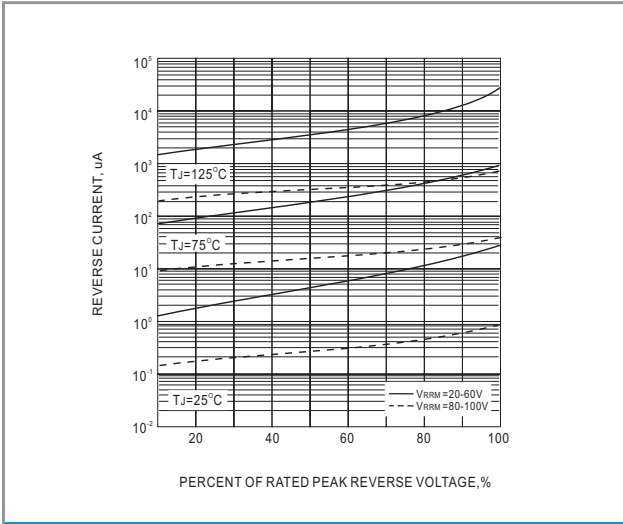


Fig.3- TYPICAL REVERSE CHARACTERISTIC

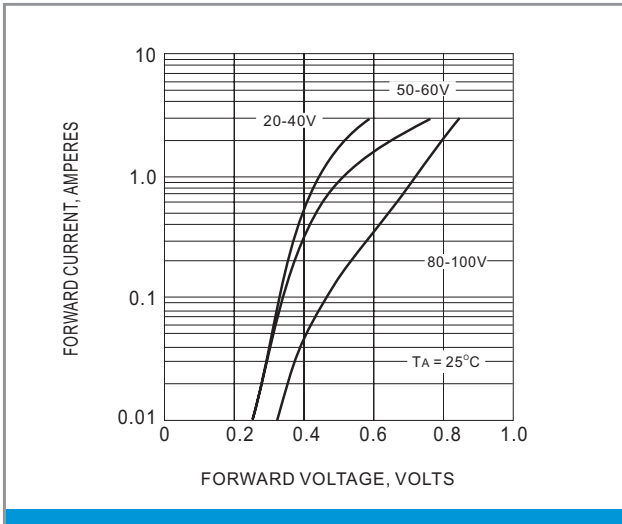


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC