



SS12 thru SS110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 1.0Ampere

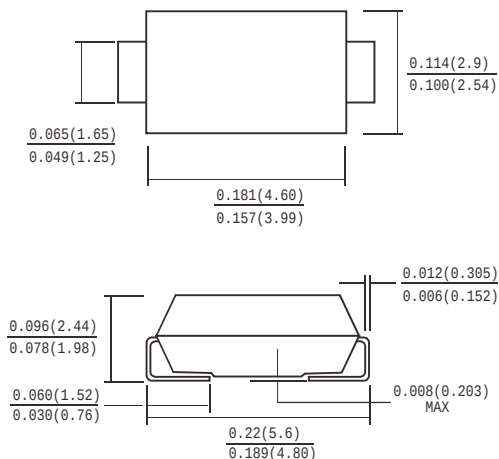
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- **Case:** JEDEC SMA(DO-214AC) molded plastic body
- **Terminals:** Solder Plated, solderable per MIL-STD-750,method 2026
- **Polarity:** Color band denotes cathode end
- **Weight:** 0.002ounce, 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 ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

		V _{RRM}	SS 12	SS 13	SS 14	SS 15	SS 16	SS 18	SS 110	Volts
Maximum repetitive peak reverse voltage		V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage		V _{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage		V _{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current (See Fig. 1)		I(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)		V _F	0.55			0.75		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _A =25°C	I _R	0.2							mA
	T _A =100°C		10.0							
Typical thermal resistance (Note 2)		R _{JA} R _{JL}	88.0 28.0							°C/W
Operating junction temperature range		T _J	-65 to+125			-65 to+150				°C
Storage temperature range		T _{STG}	-65 to+150							°C

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2. P.C.B. mounted with 0.2 X 0.2"(5.0 X 5.0mm)copper pad areas

RATING AND CHARACTERISTIC CURVES

SS12 thru SS110

FIG.1-FORWARD CURRENT DERATING CURVE

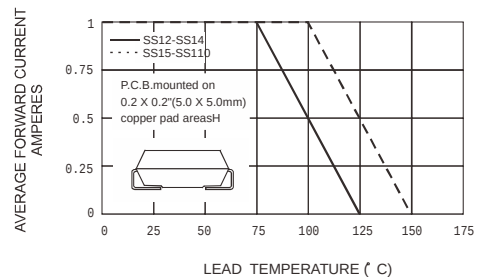


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

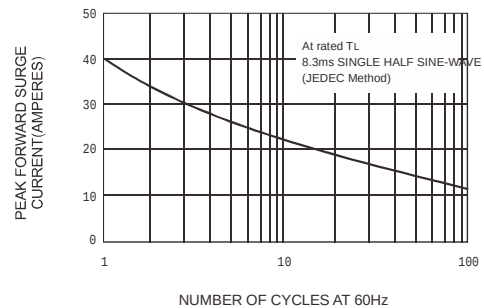


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

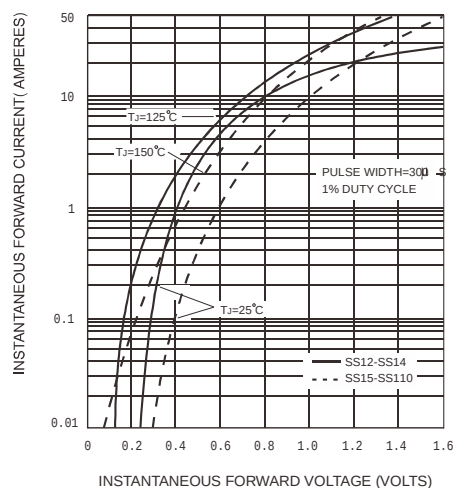


FIG.4-TYPICAL REVERSE CHARACTERISTICS

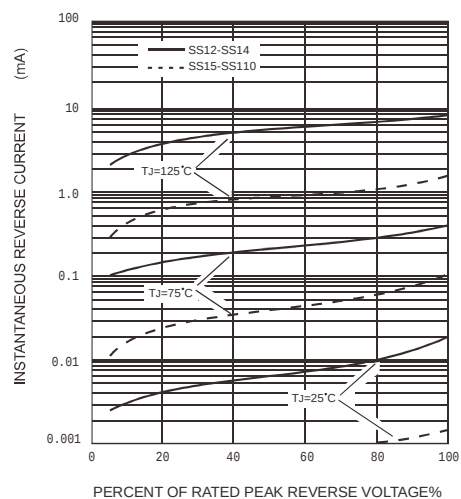


FIG.5-TYPICAL JUNCTION CAPACITANCE

