



SURFACE MOUNT SCHOTTKY BARRIER



VOLTAGE - 20 to 40V CURRENT - 0.5A

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.

MECHANICAL DATA

Case: SOD-123S, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Polarity: See Diagram Below

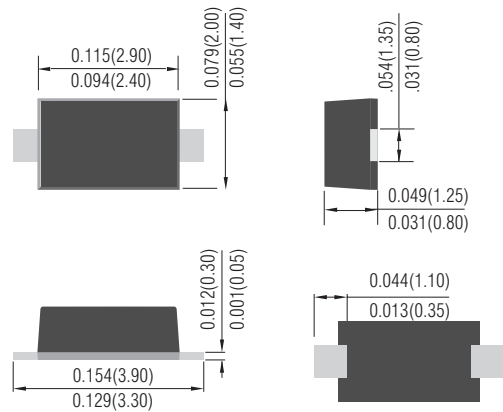
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

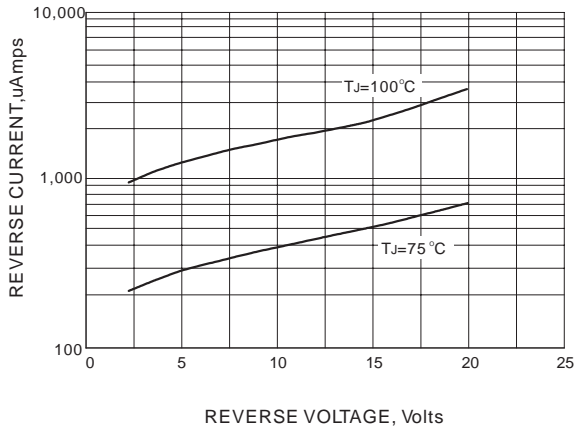
SOD-123S Unit:inch(mm)



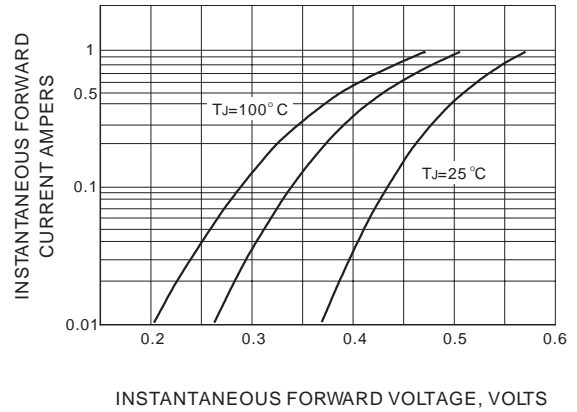
Parameter	Symbol	SS0520	SS0530	SS0540	Units
Marking Code		SD	SE	SF	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Current at T _a =75°C	I _{AV}	0.5	0.5	0.5	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	5.5	5.5	5.5	A
Maximum Instantaneous Forward Voltage at	V _F	0.3 @ 0.1A 0.385 @ 0.5A	0.375 @ 0.1A 0.430 @ 0.5A	0.51 @ 0.5A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _r	0.25	0.13	0.02	mA
Maximum Thermal Resistance	R _{qJL} R _{qJA}		150 206		°C / W
Operating Junction Temperature Range	T _J		-55 TO +150		°C
Storage Temperature Range	T _{STG}		-55 TO +150		°C

DEVICE CHARACTERISTICS

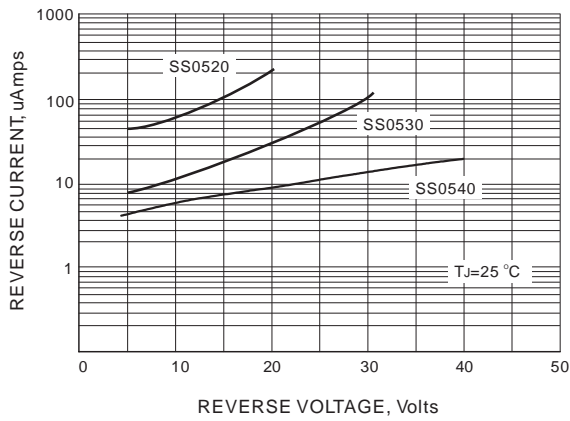
SS0520 THRU SS0540



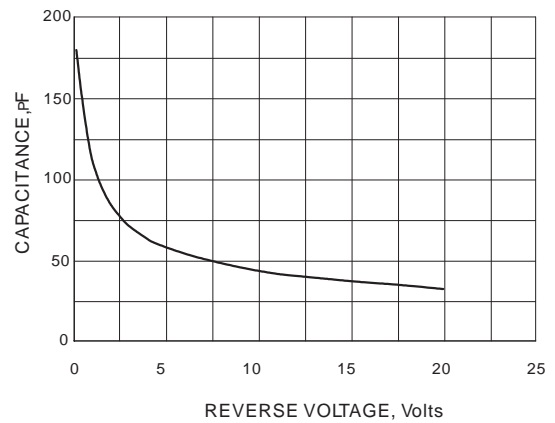
TYPICAL REVERSE CURRENT



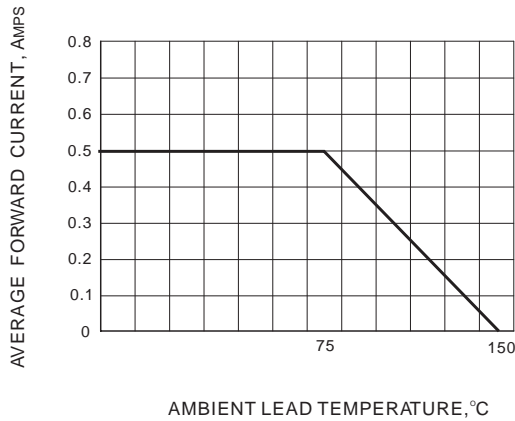
TYPICAL FORWARD VOLTAGE



TYPICAL REVERSE CURRENT



TYPICAL JUNCTION CAPACITANCE



CURRENT DERATING