

5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

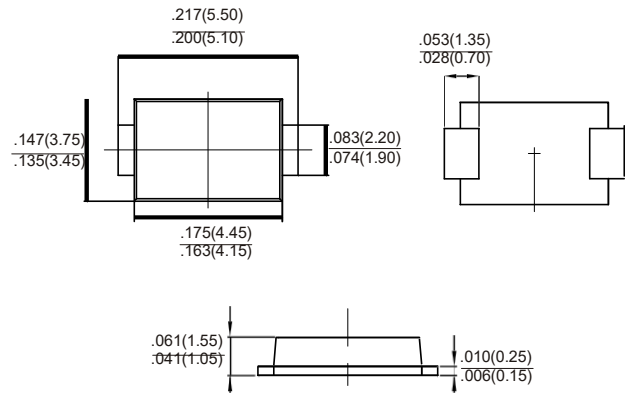
Features:

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

Mechanical Data:

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.093 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn, 5~20%Pb
- * Pb free: 99 Sn above can meet Rohs environment substance directive request

SMBF



Dimensions in inches and (millimeters)

MARKING:SS52B/SS52BT/SS52BF- SS520B/SS520BT/SS520BF/S510B

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
 Single phase half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

TYPE NUMBER	SS52B/ SS52BF	SS54B/ SS54BF	SS56B/SS56BF	SS58B/SS58BF	SS510B/SS510BF	SS515B/SS515BF	SS520B/ SS520BF	UNITS
	SS52BT	SS54BT	SS56BT	SS58BT	SS510BT	SS515BT	SS520BT	
Maximum Recurrent Peak Reverse Voltage	20	40	60	80	100	150	200	V
Maximum RMS Voltage	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current See Fig. 1	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 5.0A °	0.55	0.70	0.85				V	
Maximum DC Reverse Current Ta=25 C _a at Rated DC Blocking Voltage Ta=100 C	0.2			20				mA
Typical Junction Capacitance (Note 1)	380							°pF
Typical Thermal Resistance R JA (Note 2)	10							C/W
Operating Temperature Range Tj	-65 — +150							°C
Storage Temperature Range TSTG	-65 — +150							C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SS52B THRU S520B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

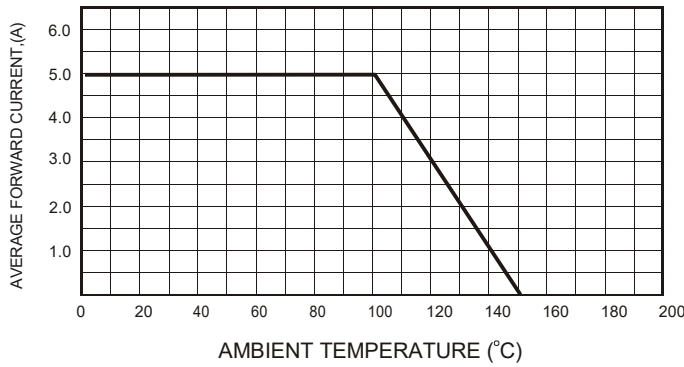


FIG.2-TYPICAL FORWARD CHARACTERISTICS

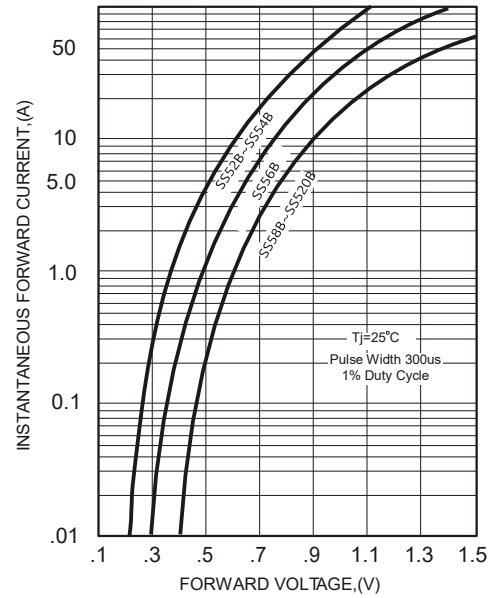


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

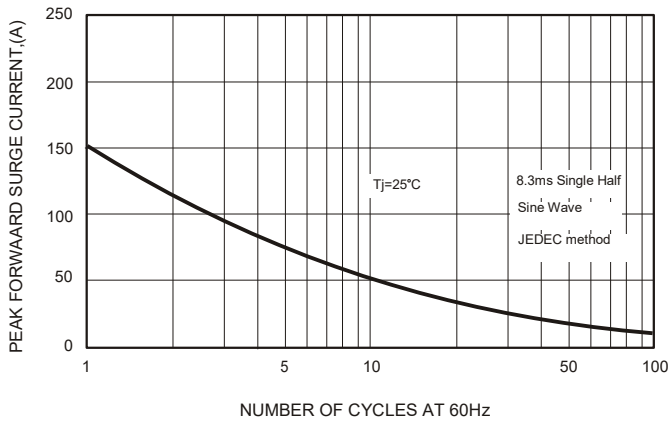


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

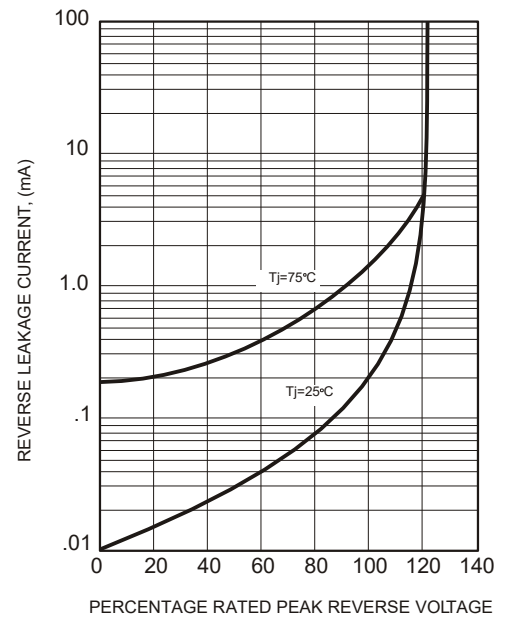
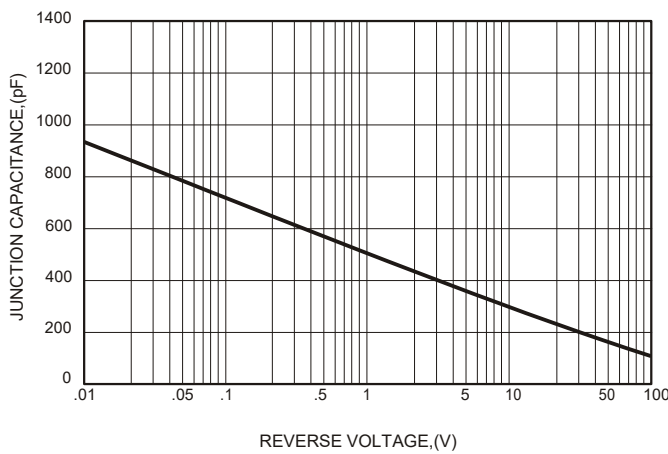
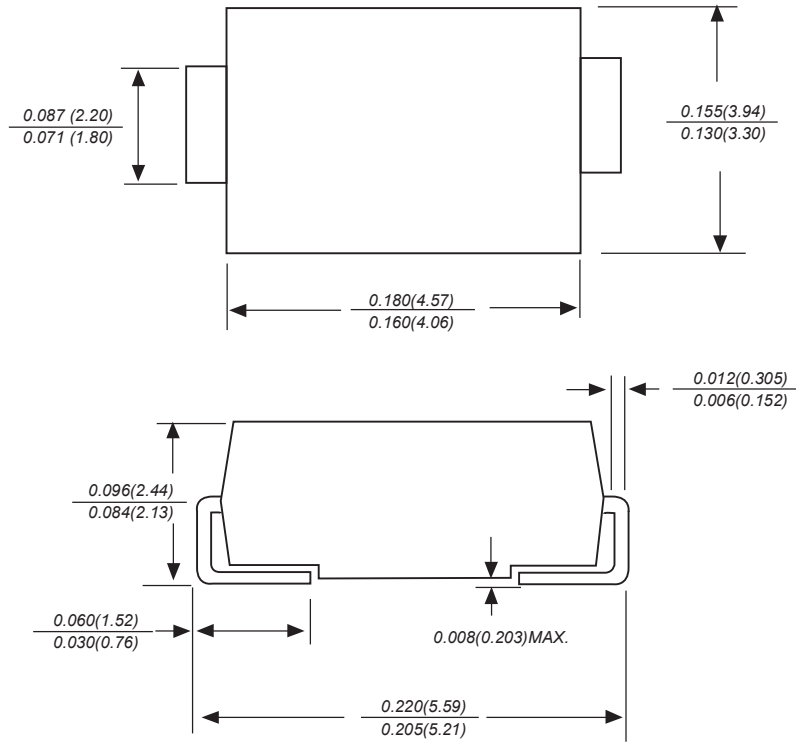


FIG.4-TYPICAL JUNCTION CAPACITANCE

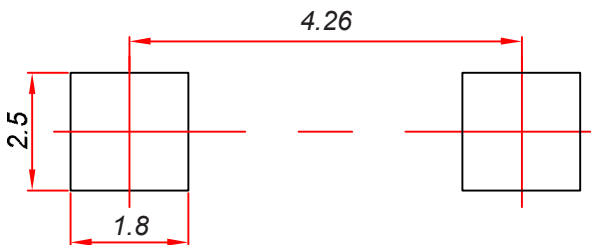


SMB Package Outline Dimensions



Dimensions in inches and (millimeters)

SMB Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05 \text{ mm}$.
3. The pad layout is for reference purposes only.