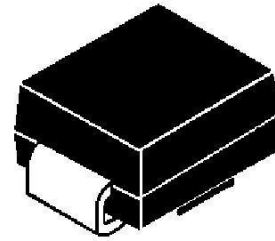


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Features

- Metal-Semiconductor junction with gardring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low vlotage, high frequency inverters, free wheeling, and polarity protection applications



SMB (DO-214 AA)

Mechanical Date

- Case: JEDEC DO-214AA molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces,0.21 grams

Major Ratings and Characteristics

$I_{F(AV)}$	5.0A
V_{RRM}	20 V to 100 V
I_{FSM}	150A
V_F	0.45V, 0.55V,0.60V, 0.70V, 0.85V
T_J max.	150 °C

Maximum Ratings & Thermal Characteristics ($T_A = 25\text{ °C}$ unless otherwise noted)

Characteristics	Symbol	SS 52B	SS 53B	SS 54B	SS 55B	SS 56B	SS 58B	SS 510B	Unit
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 Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_L=95\text{ °C}$	$I_{(AV)}$	5.0							A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	150							A
Maximum Forward Voltage at 5.0A DC	V_F	0.45	0.55	0.6	0.7		0.85		V
Maximum DC Reverse Current @ $T_J=25\text{ °C}$ at Rated DC Bolcking Voltage @ $T_J=100\text{ °C}$	I_R	1.0 50							mA
Typical Junction Capacitance ^(Note1)	C_J	500			350				pF
Typical Thermal Resistance ^(Note2)	$R_{\theta JA}$	15			10				°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC; 2.Thermal resistance junction to ambient,

Ratings And Characteristic Curves ($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

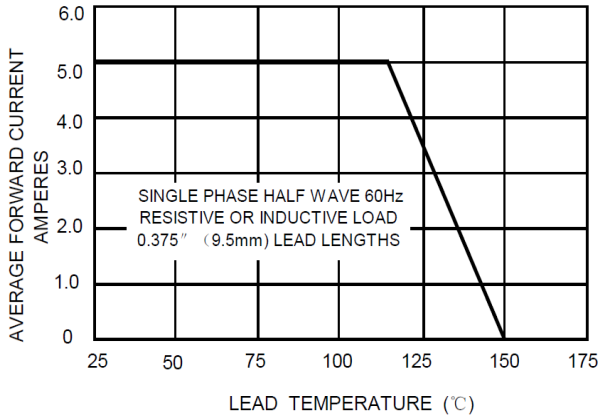


FIG. 2 MAXIMUM NON-REPETITIVE SURGE CURRENT

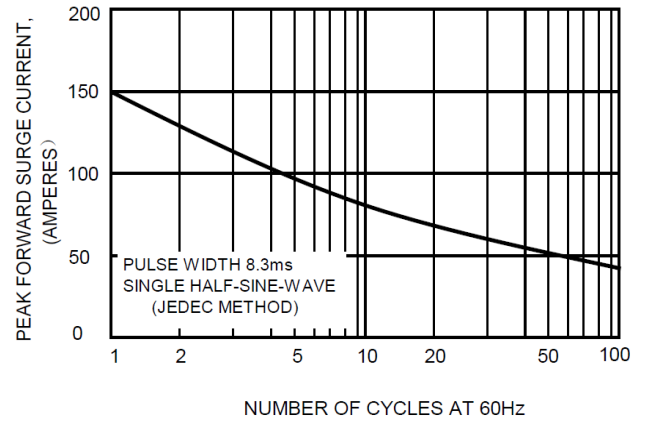


FIG.3 TYPICAL JUNCTION CAPACITANCE

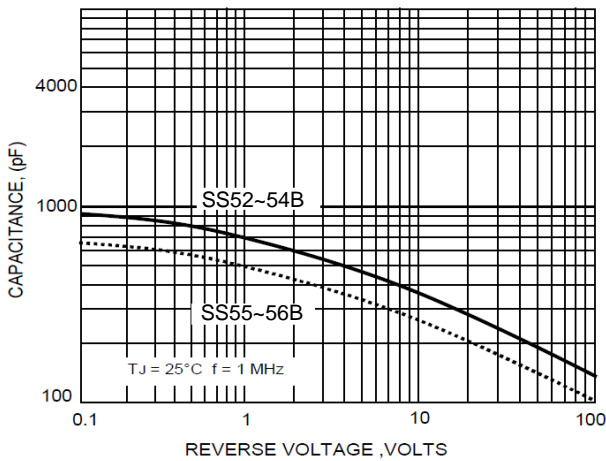


FIG.4-TYPICAL FORWARD CHARACTERISTICS

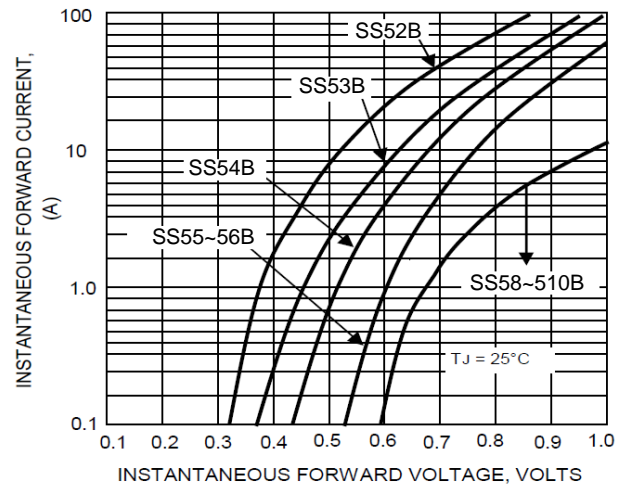
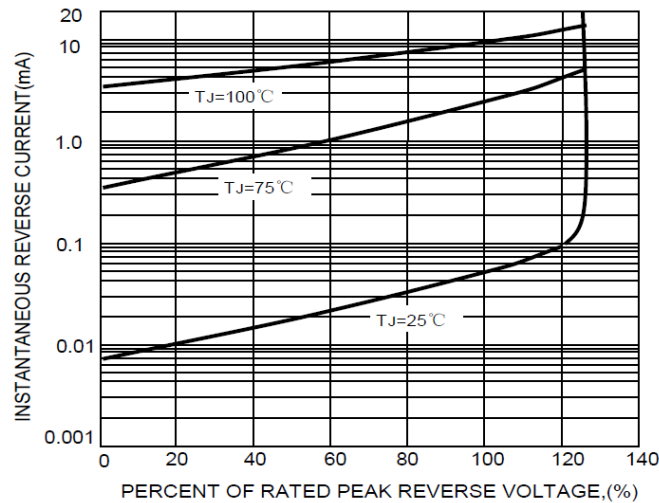
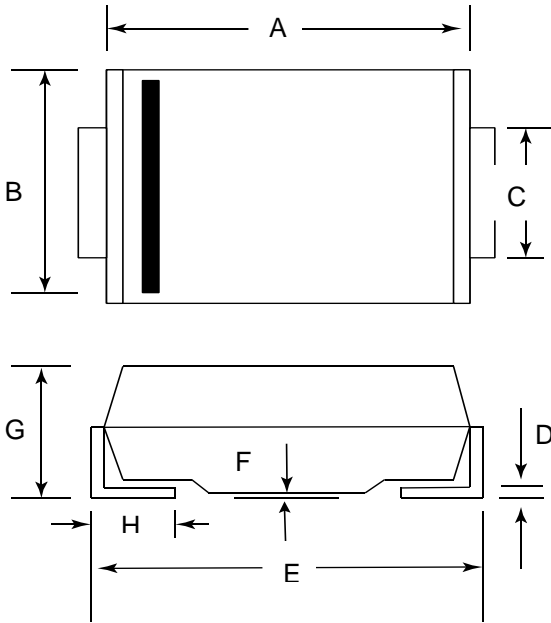


FIG.2-TYPICAL REVER CHARACTERISTICS

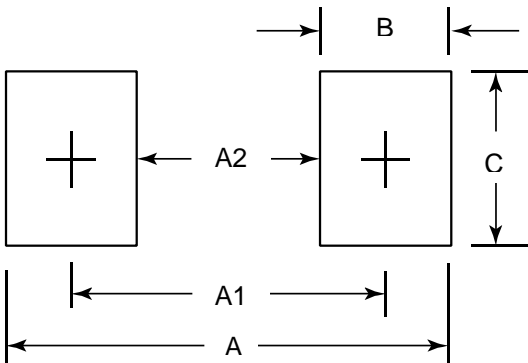


SMB Package Dimensions



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	4.06	4.57	0.160	0.180
B	3.30	3.94	0.130	0.155
C	1.78	2.20	0.070	0.086
D	0.13	0.31	0.006	0.012
E	5.08	5.59	0.200	0.220
F	----	0.20	----	0.008
G	1.95	2.62	0.077	0.103
H	0.76	1.52	0.030	0.060

Suggested Land Pattern



DIM	Millimeters
A	6.58
A1	4.42
A2	2.26
B	2.16
C	2.75