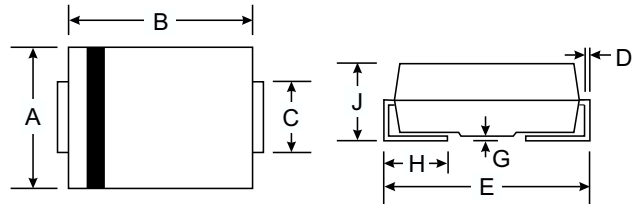


Features

5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 175 A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: SMB Weight: 0.093 grams (approx.)
SMC Weight: 0.20 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

Dim	SMB		SMC	
	Min	Max	Min	Max
A	3.30	3.94	5.59	6.22
B	4.06	4.57	6.60	7.11
C	1.96	2.21	2.75	3.18
D	0.15	0.31	0.15	0.31
E	5.00	5.59	7.75	8.13
G	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52
J	2.00	2.62	2.00	2.62

All Dimensions in mm

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS5100	SS5150	SS5200	Unit
		MBRS520	MBRS530	MBRS540	MBRS550	MBRS560	MBRS580	MBRS5100	MBRS5150	MBRS5200	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}										
DC Blocking Voltage	V_R										
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @ $T_L = 95^\circ\text{C}$ (Note 1)	I_O	5.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175									A
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	0.5		0.75		0.85		0.92			V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_{RM}	0.5									mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		20									
Typical Junction Capacitance (Note 2)	C_j	250									pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20									$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150									$^\circ\text{C}$

Note: 1. Mounted on P.C. Board with 5.0mm² copper pad area.

Marking

- SS52 / SS53 / SS54 / SS55 / SS56 / SS58 / SS510 / SS515 / SS520

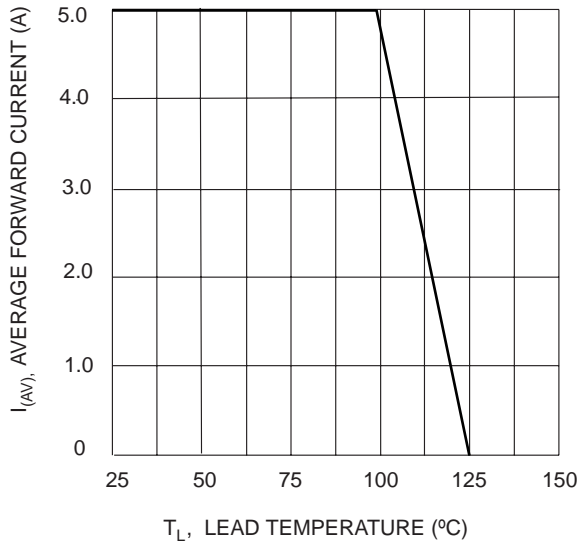


Fig. 1 Forward Current Derating Curve

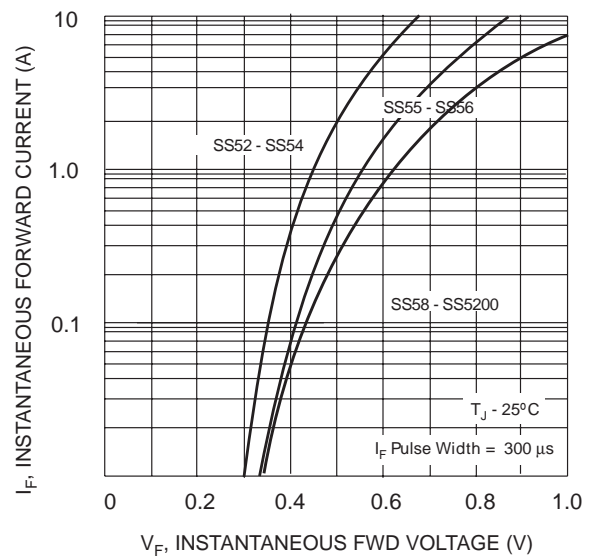


Fig. 2 Typ. Forward Characteristics

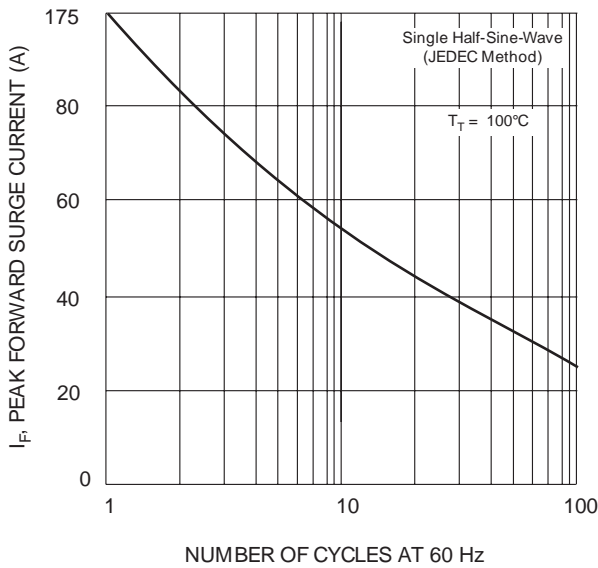


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

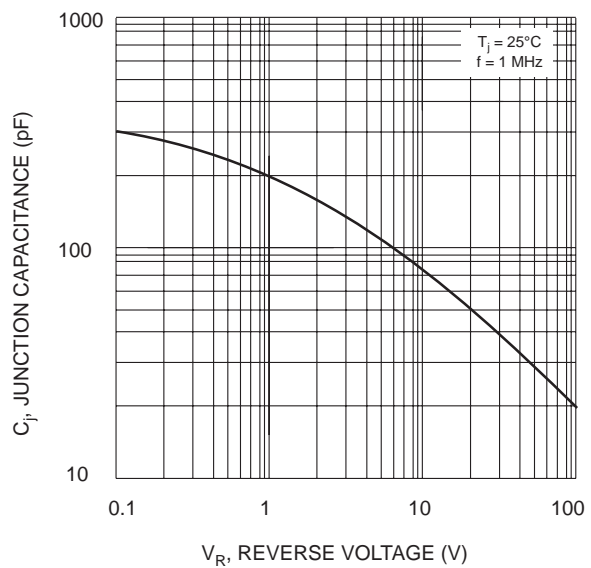


Fig. 4 Typical Junction Capacitance

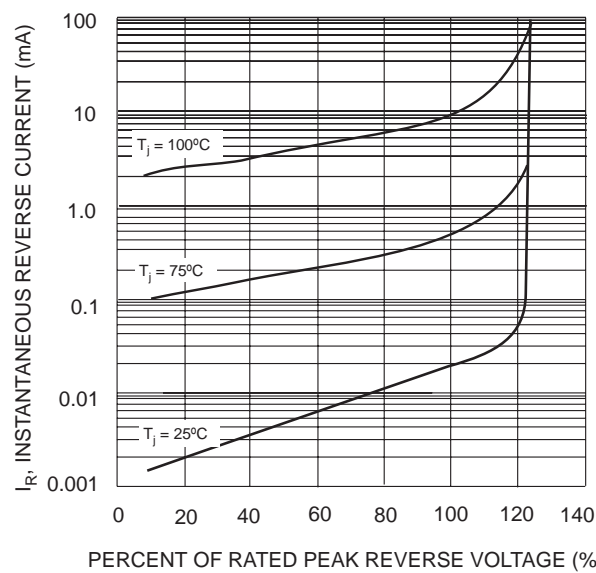


Fig. 5 Typical Reverse Characteristics