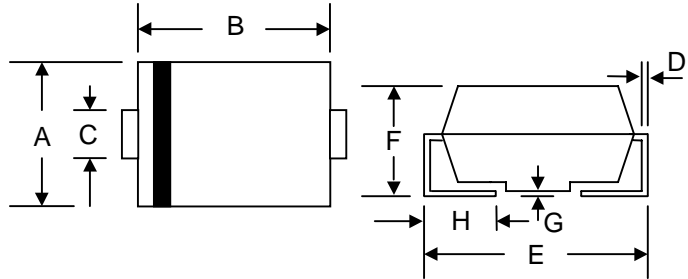


5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- 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
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

SMB/DO-214AA		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
F	2.00	2.62
G	0.10	0.20
H	0.76	1.52
All Dimensions in mm		

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

Characteristic	Symbol	B520B	B530B	B540B	B550B	B560B	B580B	B5100B	B5150B	B5200B	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}										V	
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	80	100	150	200		
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 (Note 1) @ $T_L = 95^\circ\text{C}$	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}	0.55			0.75		0.85		0.92		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	0.5					20					mA
Typical Junction Capacitance (Note 2)	C_j	250									pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20									$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150									$^\circ\text{C}$	

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

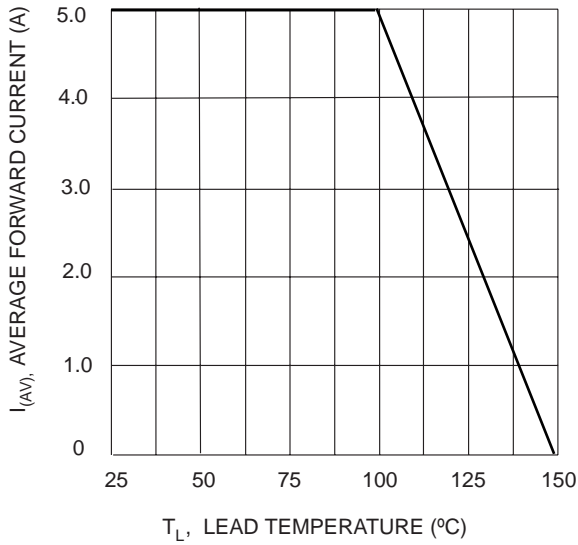


Fig. 1 Forward Current Derating Curve

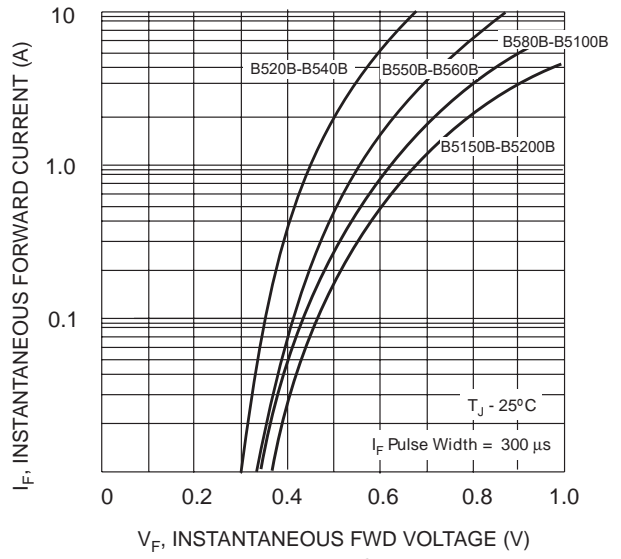


Fig. 2 Typ. Forward Characteristics

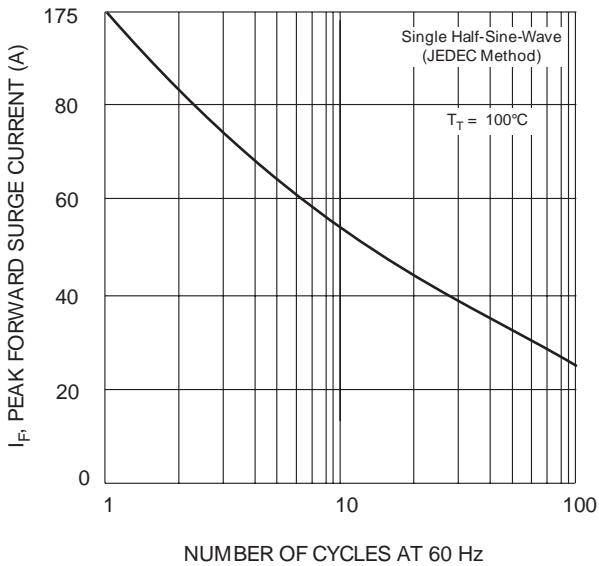


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

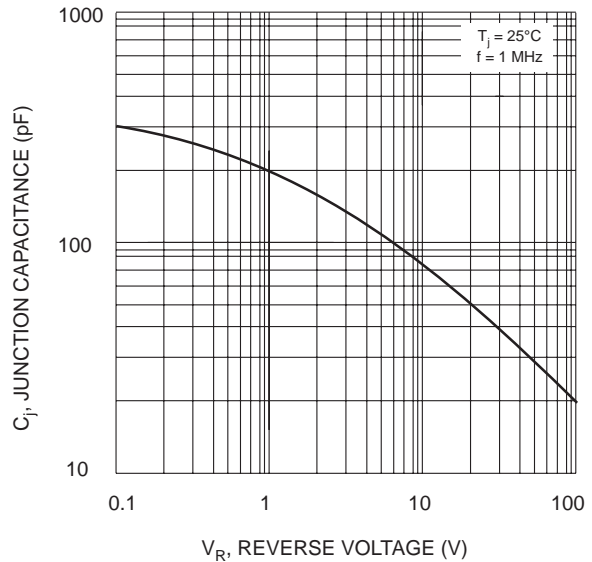


Fig. 4 Typical Junction Capacitance

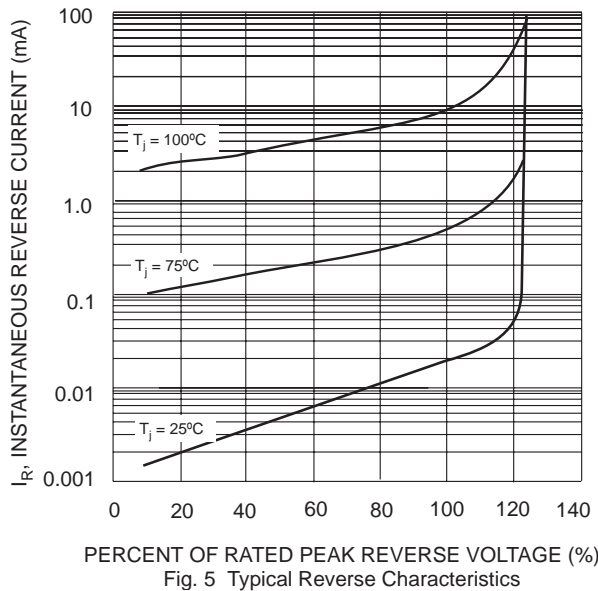


Fig. 5 Typical Reverse Characteristics