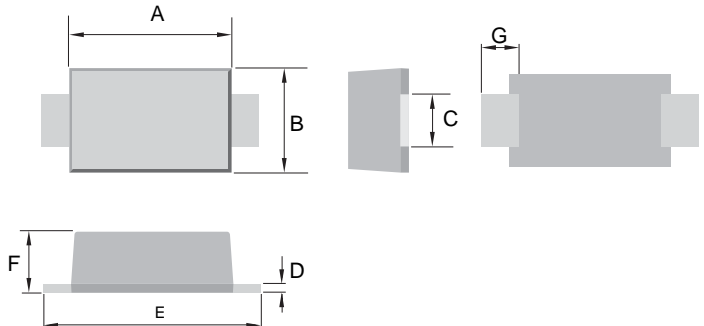


5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 1.5 0A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: SMBF, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.057 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

SMBF		
Dim	Min	Max
A	4.20	4.40
B	3.50	3.70
C	1.90	2.20
D	0.18	0.26
E	5.10	5.50
F	1.10	1.30
G	1.00	-
All Dimensions in mm		

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

Characteristic	Symbol	SS52BF	SS53BF	SS54BF	SS55BF	SS56BF	SS58BF	SS510BF	SS515BF	SS520BF	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 @ $T_L = 75^\circ\text{C}$	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}	150									A	
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	0.55			0.70		0.85		0.90		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 Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$						28 88					$^\circ\text{C/W}$
Typical Junction Capacitance	C_j	800					500					pF
Operating Temperature Range	T_j	-65 to +125									$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-65 to +150									$^\circ\text{C}$	

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

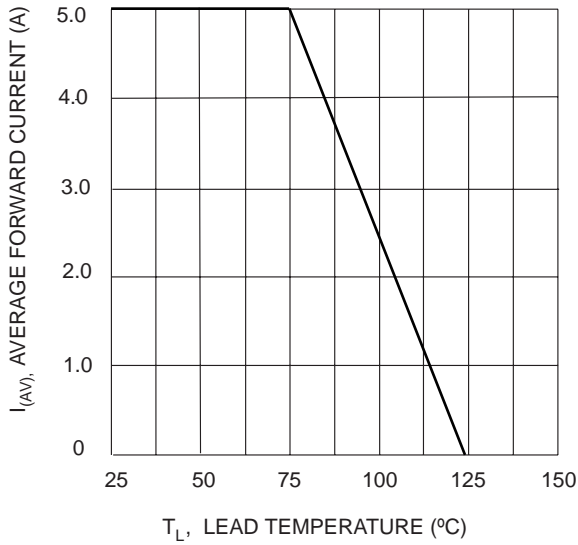


Fig. 1 Forward Current Derating Curve

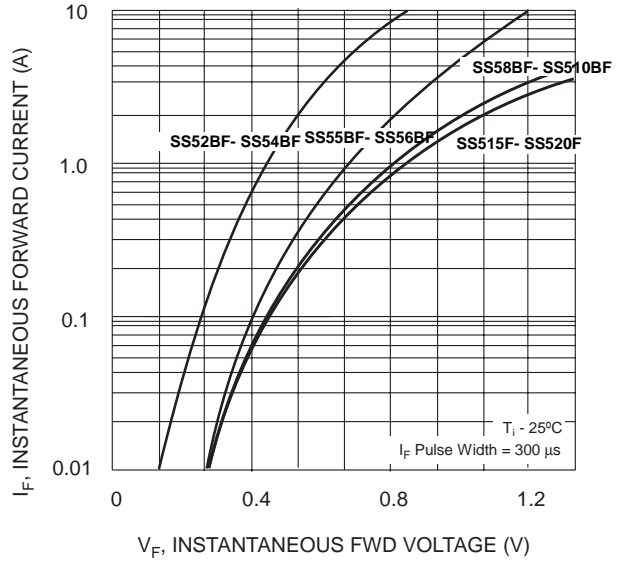


Fig. 2 Typ. Forward Characteristics

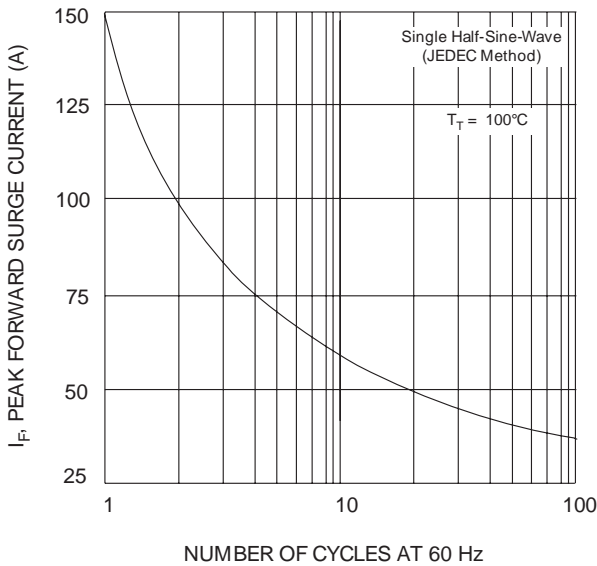


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

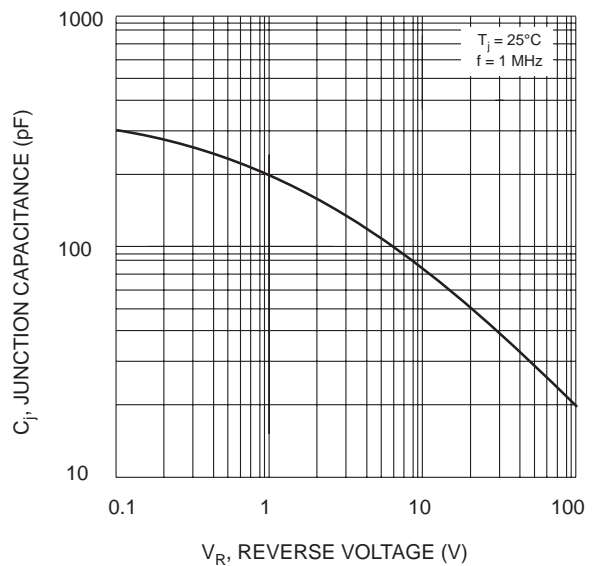


Fig. 4 Typical Junction Capacitance

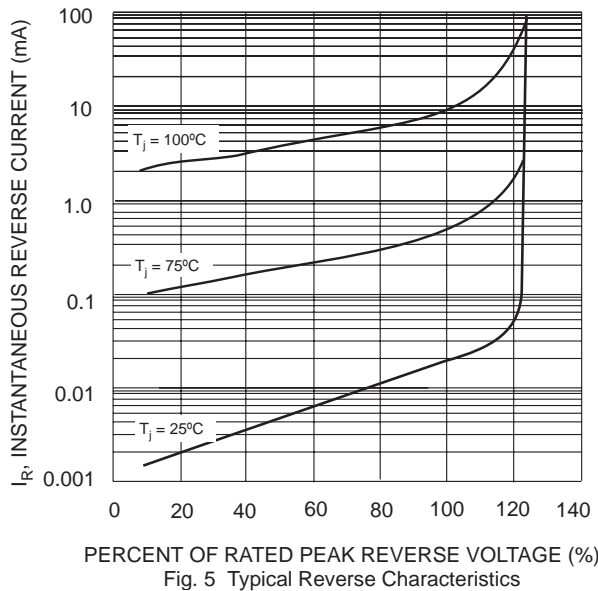


Fig. 5 Typical Reverse Characteristics