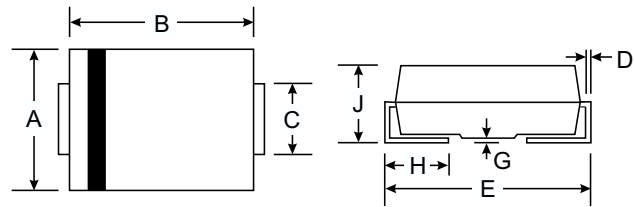


### 5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 17.5 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<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS 5100	SS 5150	SS 5200	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>										V	
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	50	60	80	100	150	200		
DC Blocking Voltage	V <sub>R</sub>											
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	70	105	140	V	
Average Rectified Output Current @T <sub>L</sub> = 95°C (Note 1)	I <sub>O</sub>	5.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	175									A	
Forward Voltage @I <sub>F</sub> = 5.0A	V <sub>FM</sub>	0.5		0.75		0.85		0.92		V		
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5				20						mA
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	250									pF	
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	20									°C/W	
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150									°C	

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

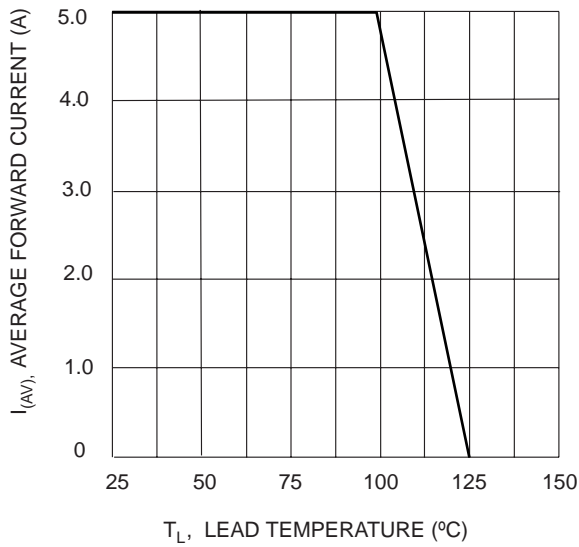


Fig. 1 Forward Current Derating Curve

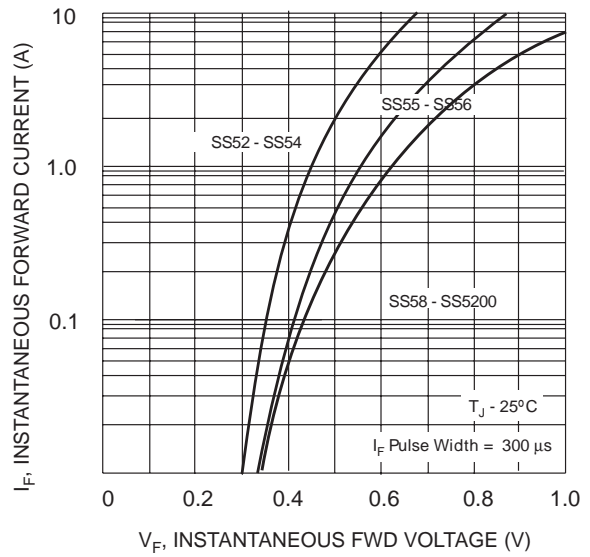


Fig. 2 Typ. Forward Characteristics

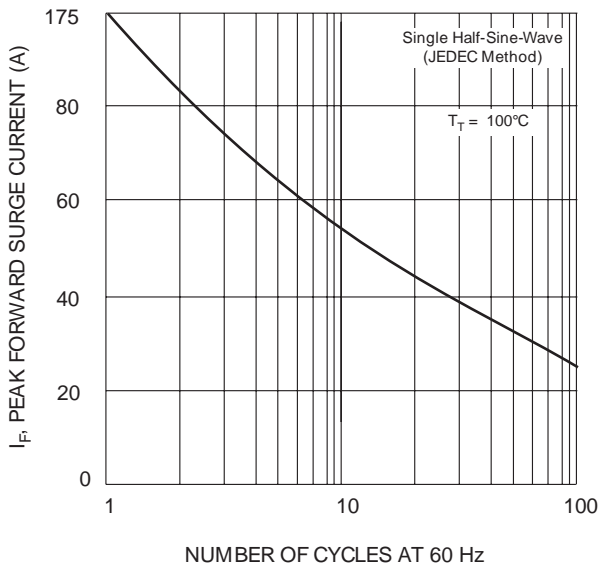


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

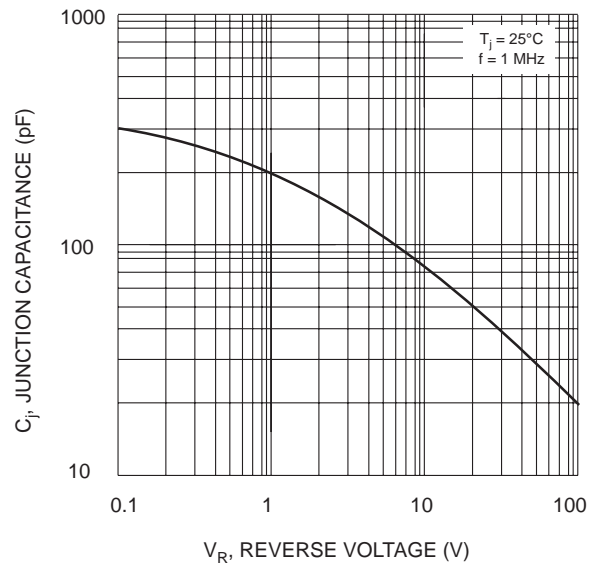


Fig. 4 Typical Junction Capacitance

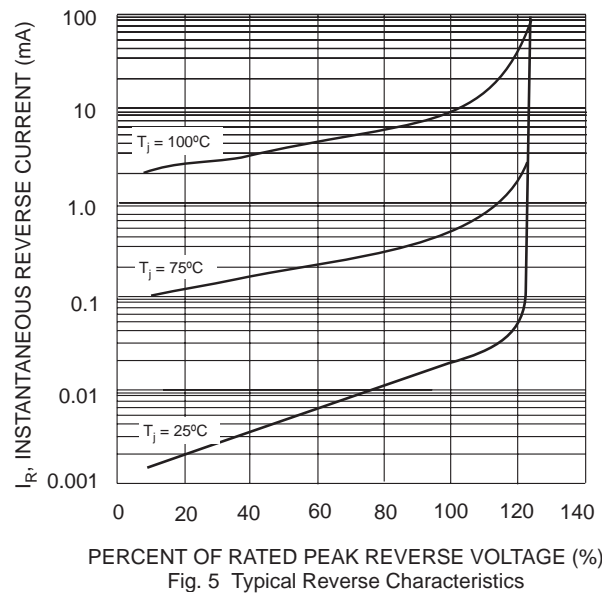


Fig. 5 Typical Reverse Characteristics