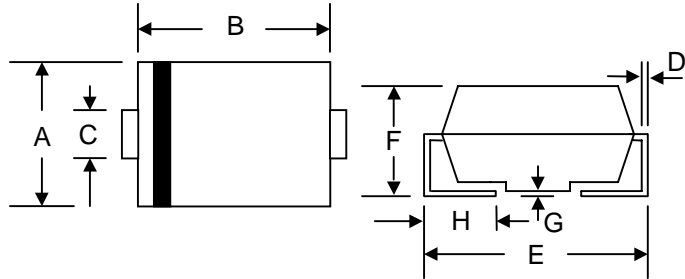


### 3.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 80 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: 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: 0.20 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.25
D	0.152	0.305
E	7.75	8.13
F	2.00	2.62
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

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

Characteristic	Symbol	MB32	MB33	MB34	MB35	MB36	MB38	MB310	MB315	MB320	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) @ $T_L = 75^\circ\text{C}$	$I_o$	3.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80									A	
Forward Voltage @ $I_F = 3.0\text{A}$	$V_{FM}$	0.70			0.75		0.80	0.90			V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	0.05					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 5.0mm<sup>2</sup> copper pad area.

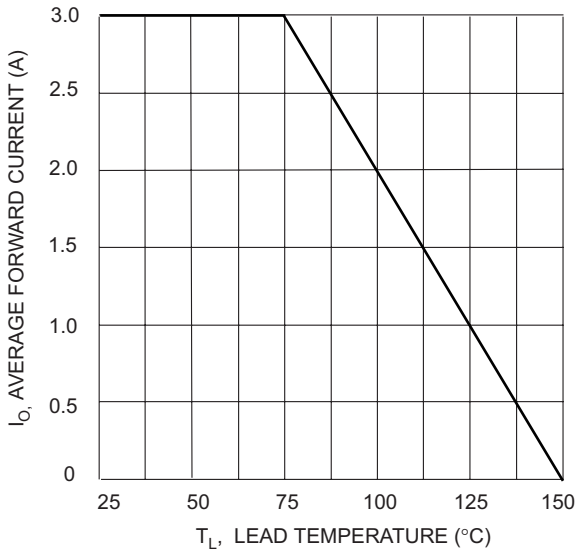


Fig. 1 Forward Current Derating Curve

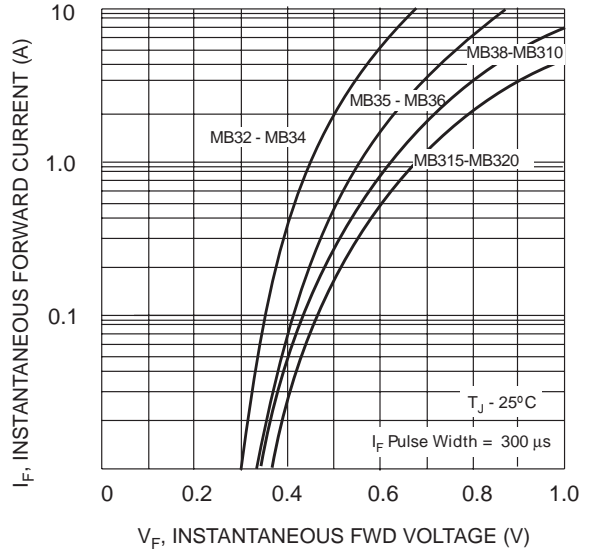


Fig. 2 Typ. Forward Characteristics

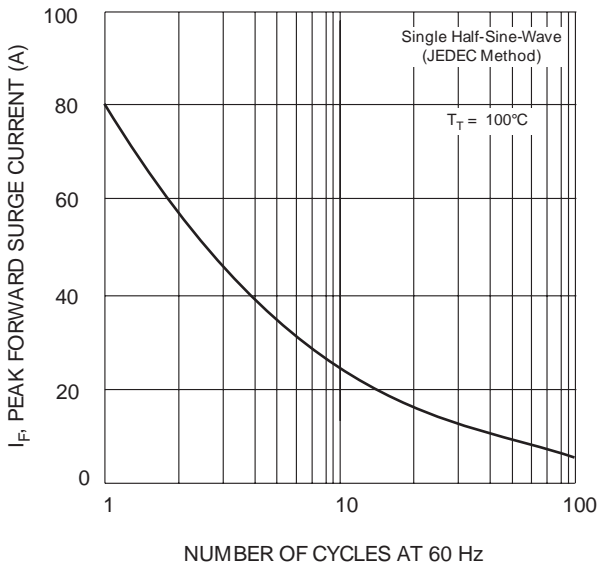


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

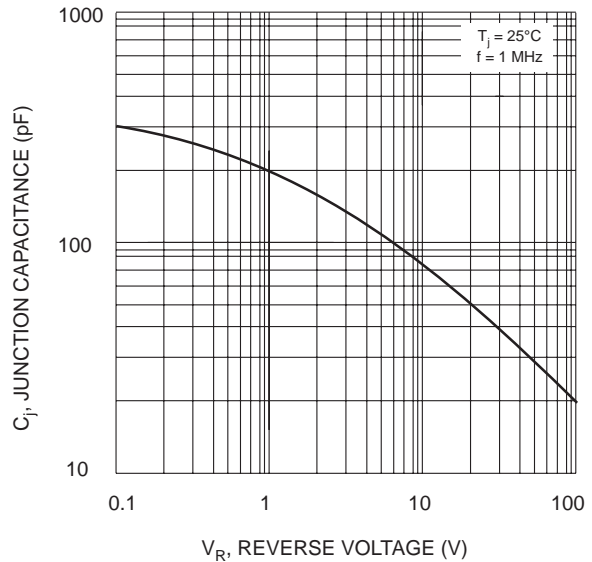


Fig. 4 Typical Junction Capacitance

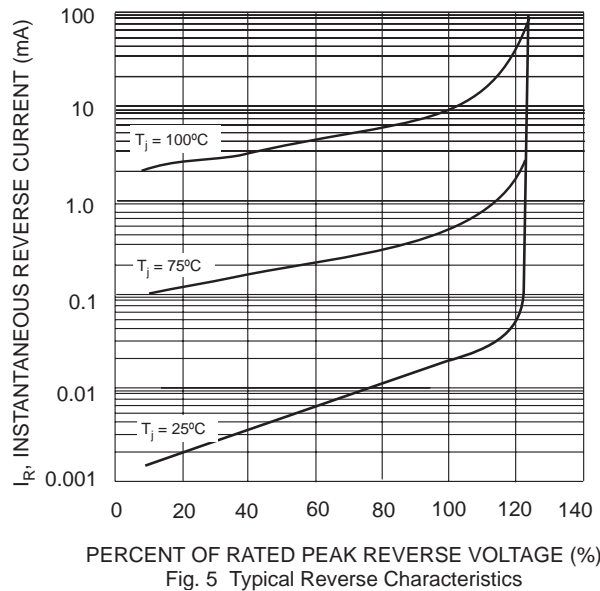


Fig. 5 Typical Reverse Characteristics