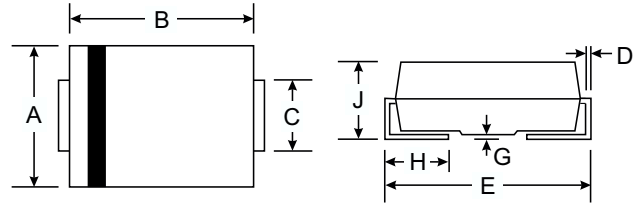


### 1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



#### Mechanical Data

- Case: SMA/DO-214AC 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: SMA Weight: 0.064 grams (approx.)  
SMB Weight: 0.093 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

Dim	SMA		SMB	
	Min	Max	Min	Max
A	2.29	2.92	3.30	3.94
B	4.00	4.60	4.06	4.57
C	1.27	1.63	1.96	2.21
D	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59
G	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52
J	2.01	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	MB22A	MB23A	MB24A	MB25A	MB26A	MB28A	MB210A	MB215A	MB220A	Unit	
		MB22	MB23	MB24	MB25	MB26	MB28	MB210	MB215	MB220		
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>VRM</sub> V <sub>R</sub>	20	30	40	50	60	80	100	150	200	V	
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> = 75°C	I <sub>O</sub>	2.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50									A	
Forward Voltage @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	0.70			0.74		0.80		0.90		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>	0.05					20					mA
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	28					88					°C/W
Typical Junction Capacitance	C <sub>j</sub>	110					30		110		pF	
Operating Temperature Range	T <sub>j</sub>	-55 to +150									°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C	

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

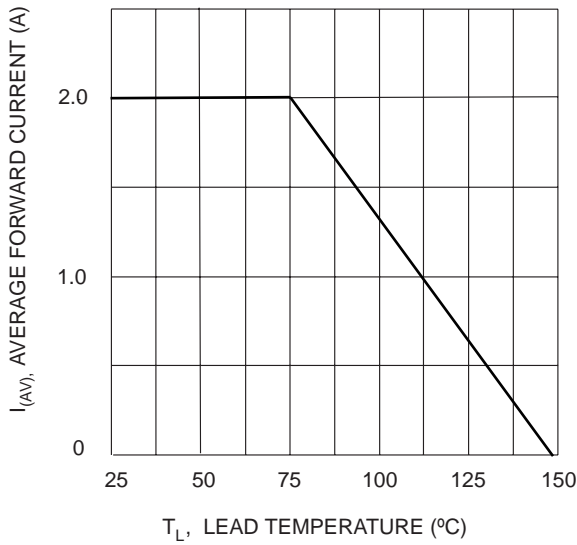


Fig. 1 Forward Current Derating Curve

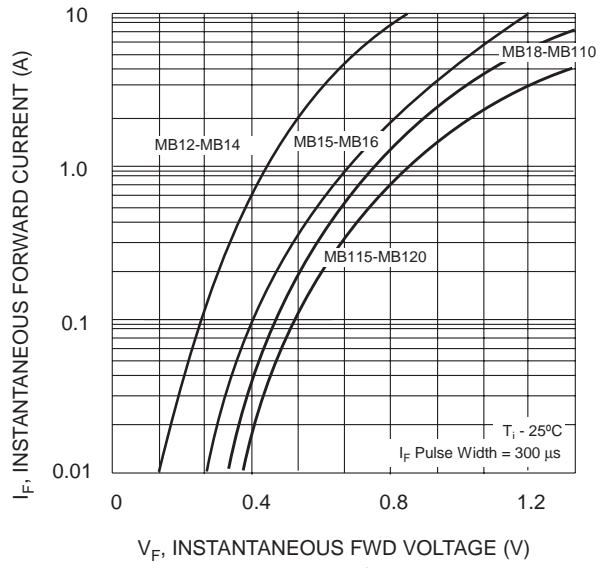


Fig. 2 Typ. Forward Characteristics

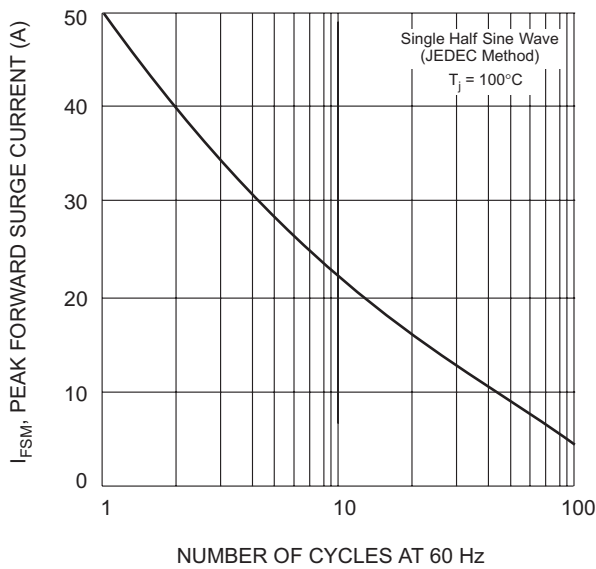


Fig. 3 Max Non Repetitive Peak Fwd Surge Current

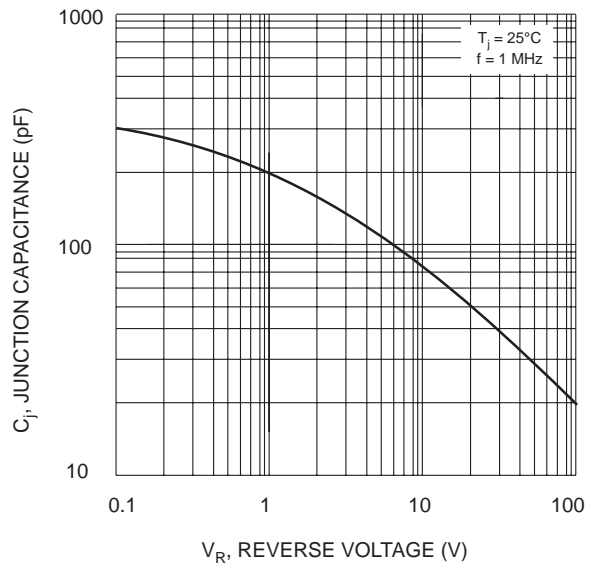


Fig. 4 Typical Junction Capacitance

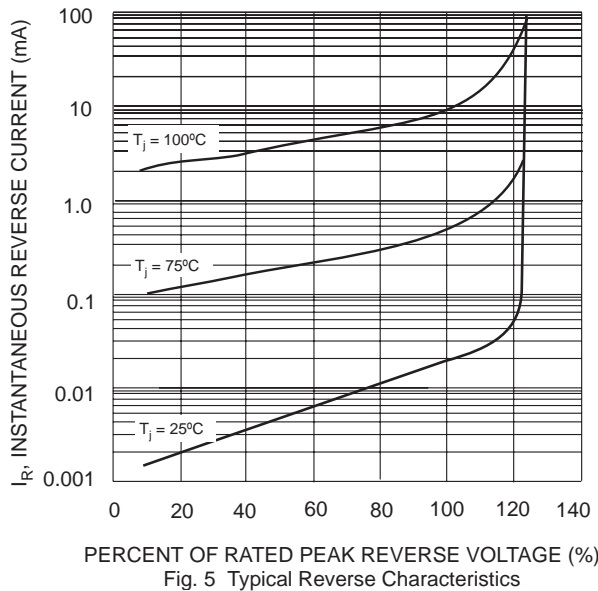


Fig. 5 Typical Reverse Characteristics