Zibo Seno Electronic Engineering Co., Ltd.

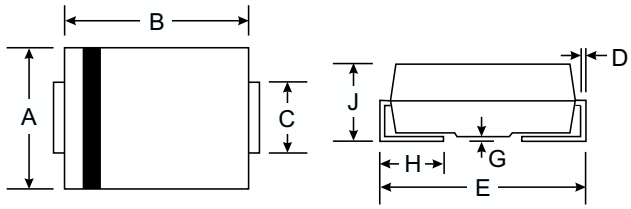
淄博圣诺

MB12A – MB120A
MB12 – MB120

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 30A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



	SMA		SMB	
Dim	**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				

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**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	MB12A MB12	MB13A MB13	MB14A MB14	MB15A MB15	MB16A MB16	MB18A MB18	MB110A MB110	MB115A MB115	MB120A MB120	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @T_L = 75°C	I_O	1.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30									A
Forward Voltage @I_F = 1.0A	V_{FM}	0.70			0.74		0.80		0.90		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.05 20									mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	28 88									°C/W
Typical Junction Capacitance	C_j	110					30		110		pF
Operating Temperature Range	T_j	-55 to +150									°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

Note: 1. Mounted on P.C. Board with 5.0mm^2 copper pad area.

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MB12A – MB120A
MB12 – MB120

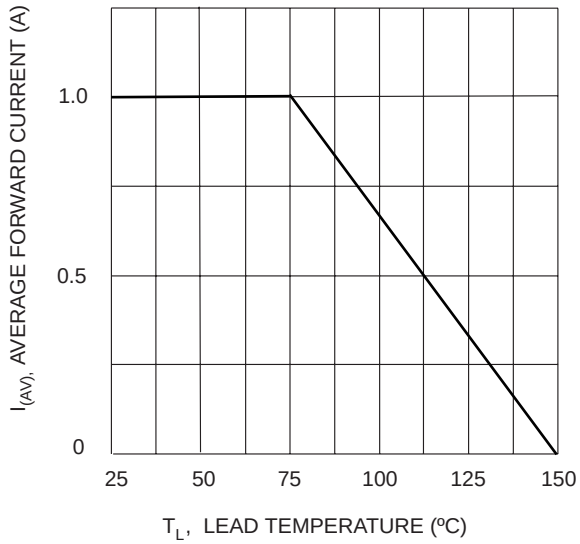


Fig. 1 Forward Current Derating Curve

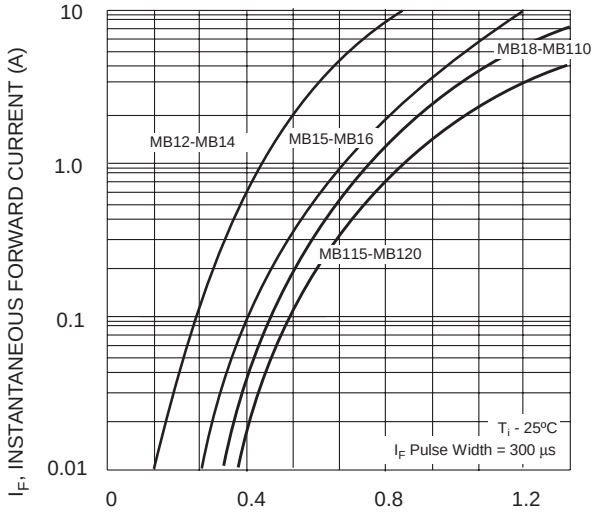


Fig. 2 Typ. Forward Characteristics

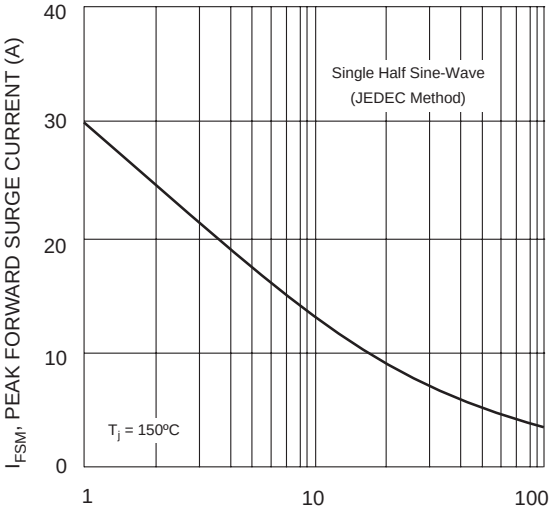


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

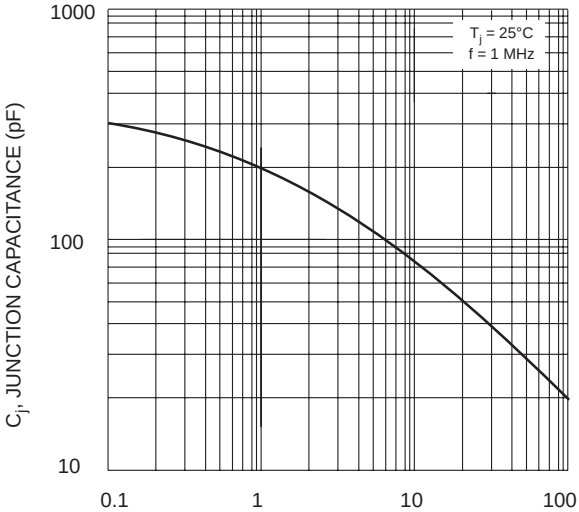


Fig. 4 Typical Junction Capacitance

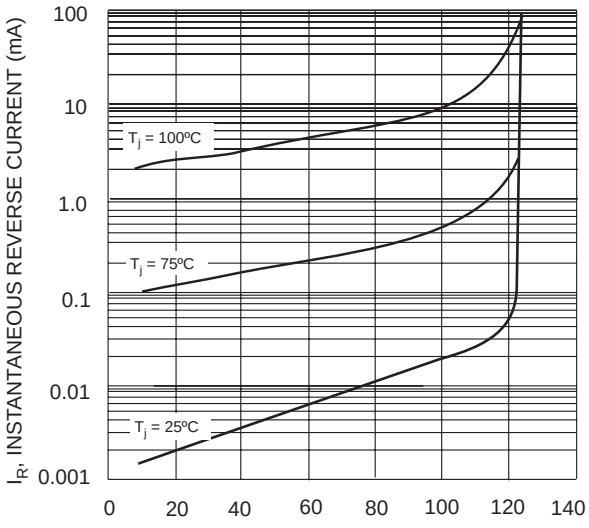


Fig. 5 Typical Reverse Characteristics

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