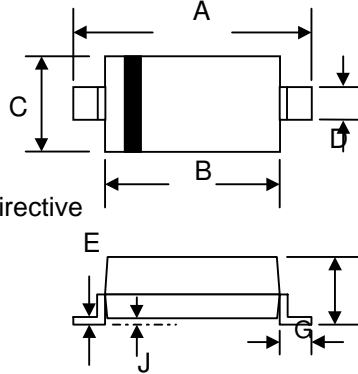


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Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O
- Green Products in Compliance with the RoHS Directive



SOD-123				
Dim	Min	Max	Min	Max
A	3.6	3.9	0.14	0.154
B	2.5	2.8	0.098	0.110
C	1.4	1.8	0.055	0.070
D	0.5	0.7	0.020	0.028
E	—	0.2	—	0.008
G	0.4	—	0.016	—
H	0.95	1.35	0.037	0.053
J	—	0.12	—	0.005
			In mm	In inch

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: MBR120HW-G G3
MBR140HW-G G5

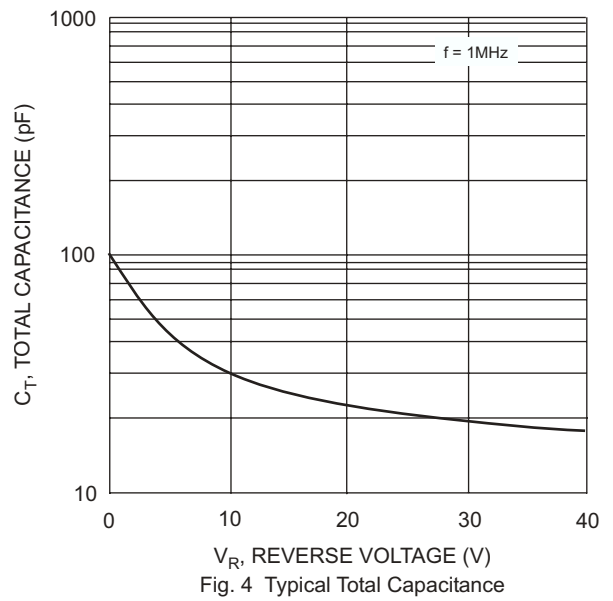
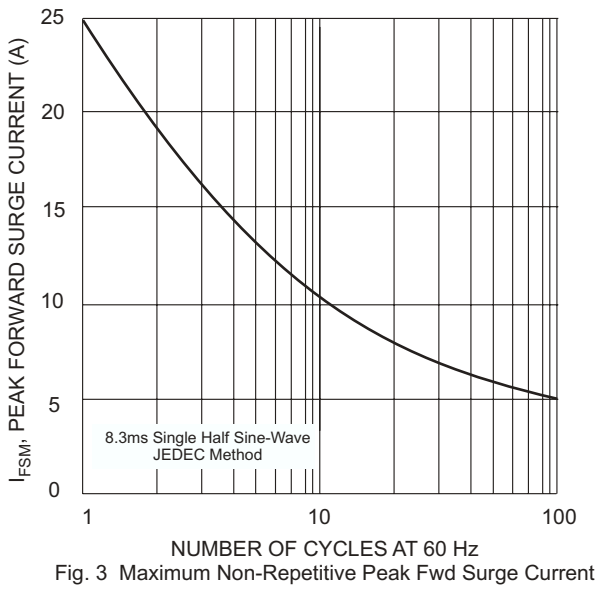
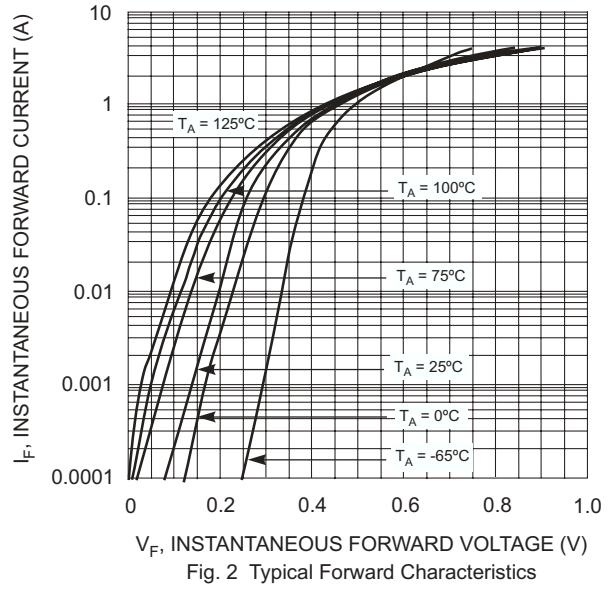
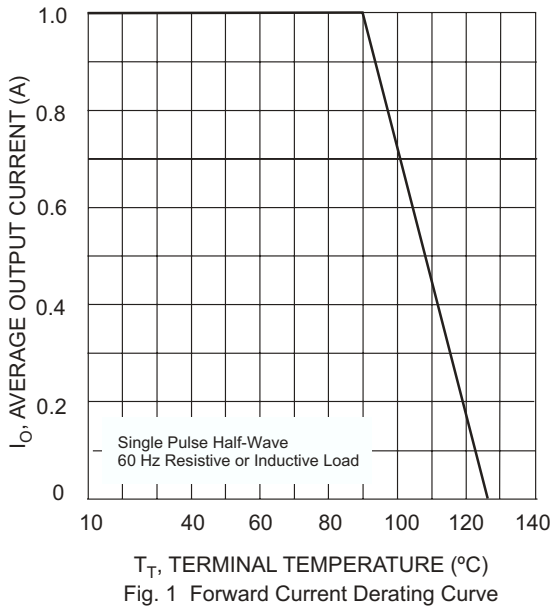
Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	MBR120HW-G	MBR140HW -G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	40	V
Forward Continuous Current (Note 1)	I_F	1.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25		A
Power Dissipation (Note 1)	P_d	450		mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	222		$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125		$^\circ\text{C}$

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

Characteristic	Symbol	MBR120HW-G	MBR140HW-G	Unit
Forward Voltage Drop @ $I_F = 1.0\text{A}$	V_{FM}	0.45	0.55	V
Peak Reverse Leakage Current @ DC Blocking Voltage	I_{RM}	400	500	μA
Typical Junction Capacitance ($V_R = 4\text{V DC}, f = 1\text{MHz}$)	C_j	50		pF

Note: 1. Valid provided that terminals are kept at ambient temperature.



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ORDERING INFORMATION

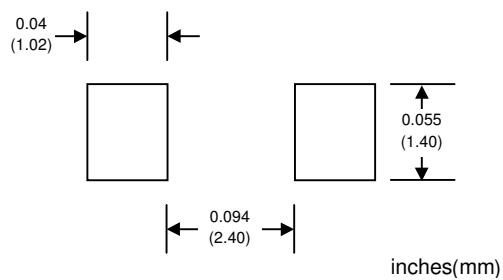
Product No.♦	Package Type	Shipping Quantity
MBR120HW-G-T1	SOD-123	3000/Tape & Reel
MBR120HW-G-T3	SOD-123	10000/Tape & Reel
MBR140HW-G-T1	SOD-123	3000/Tape & Reel
MBR140HW-G-T3	SOD-123	10000/Tape & Reel

Products listed in bold are Sensitron Preferred devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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