



# THE DATASHEET OF MBR130HWTR



**MBR130HW SURFACE MOUNT SCHOTTKY BARRIER DIODE**

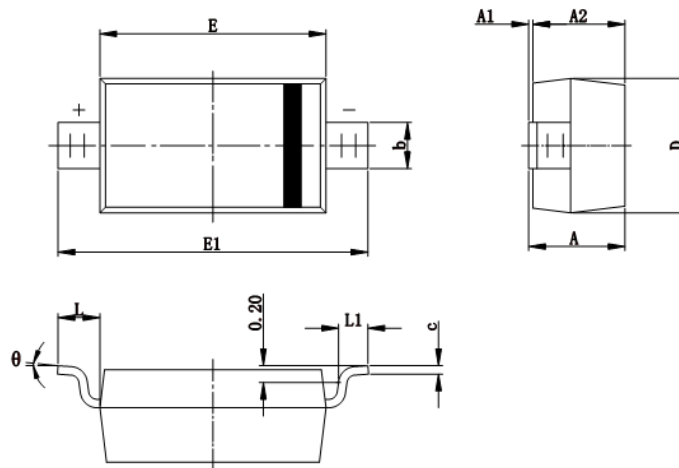
**Features:**

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-0
- Green Products in Compliance with the ROHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

**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)

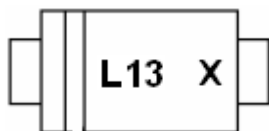
**Mechanical Dimensions: In mm / Inches**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

**SOD-123(CJ)**

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Marking Diagram:**


Where X is Date Code

L13 = Part Name

**Cautions:** Molding resin  
 Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
MBR130HW	SOD-123(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

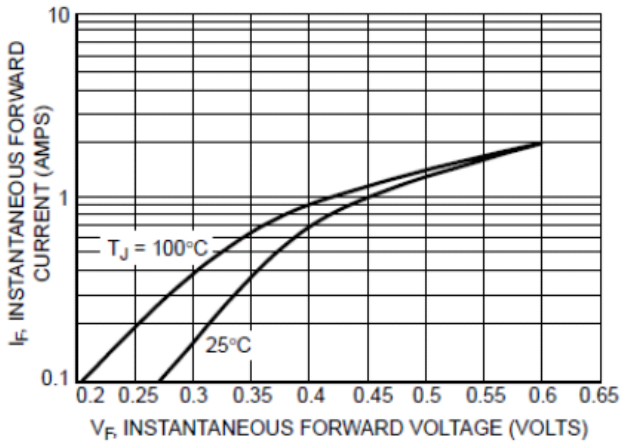
**Maximum Ratings @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Characteristic	Symbol	MBR130HW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
Forward Continuous Current(Note1)	$I_F$	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(Note1)	$P_D$	450	mW
Typical Thermal Resistance, Junction to Ambient Air(Note1)	$R_{\theta JA}$	222	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125	$^{\circ}\text{C}$

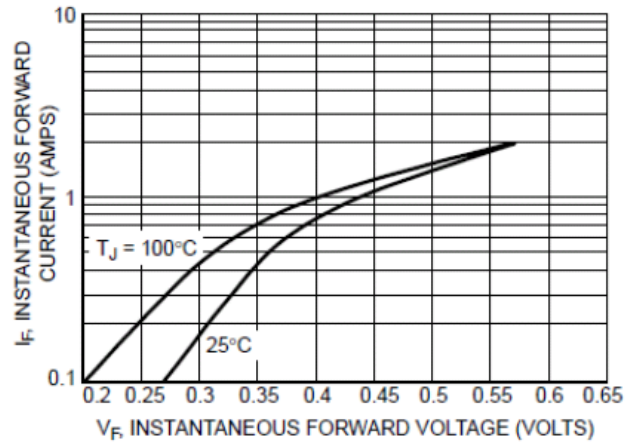
**Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Characteristic	Symbol	Typ.	Max.	Unit
Forward Voltage Drop @ $I_F=1.0\text{A}$	$V_{FM}$	0.44	0.45	V
Peak Reverse Leakage Current @DC Blocking Voltage	$I_{RM}$	0.01	0.4	mA
Junction Capacitance( $V_R=4\text{V DC}, f=1\text{MHz}$ )	$C_J$	50	-	pF

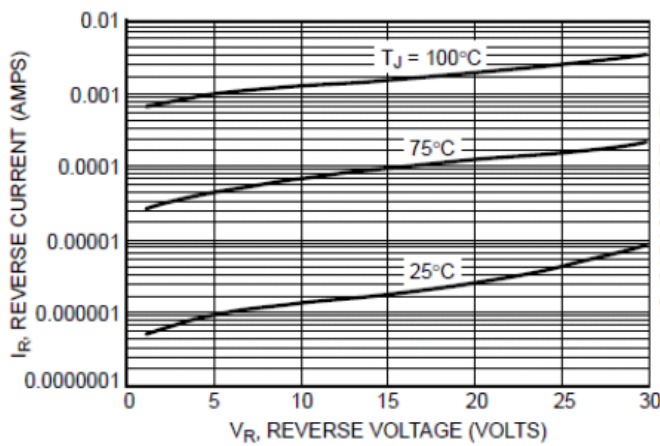
Note: 1. Valid provided that terminals are kept at ambient temperature.



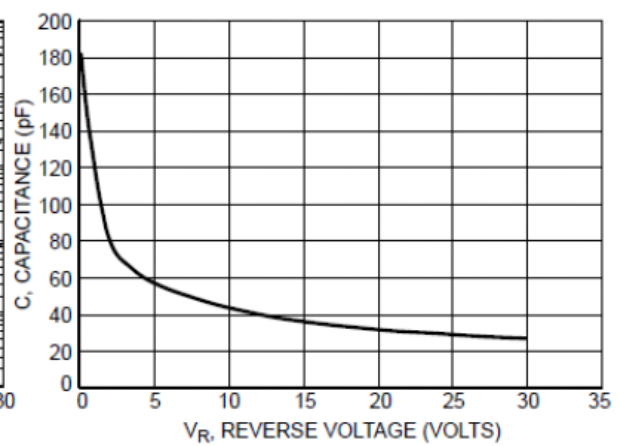
**Figure 1. Maximum Forward Voltage**



**Figure 2. Typical Forward Voltage**



**Figure 3. Typical Reverse Current**



**Figure 4. Typical Capacitance**



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- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management