

## MBR160HW 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

### Circuit Diagram



### Mechanical Data

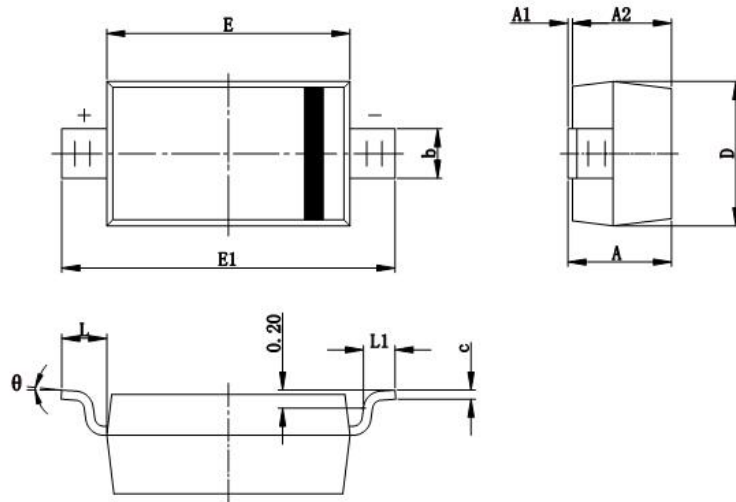
- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams(approx)

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	MBR160HW	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	60	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current@T <sub>A</sub> = 90°C	$I_F$	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load(JEDEC Method)	$I_{FSM}$	20	A
Typical Thermal Resistance, Junction to Ambient Air(Note1)	$R_{\theta JA}$	222	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125	°C

Characteristic	Symbol	Typ.	Max.	Unit
Forward Voltage Drop @I <sub>F</sub> =1.0A	$V_{FM}$	-	0.72	V
Peak Reverse Leakage Current @DC Blocking Voltage	$I_{RM}$	-	0.3	mA
Junction Capacitance(V <sub>R</sub> =5 DC, f=1MHz)	$C_J$	-	30	pF

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

**Mechanical Dimensions SOD-123**


SYMBOL	Millimeters		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
$\theta$	0°	8°	0°	8°

**Ordering Information**

Device	Package	Shipping
MBR160HW	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.

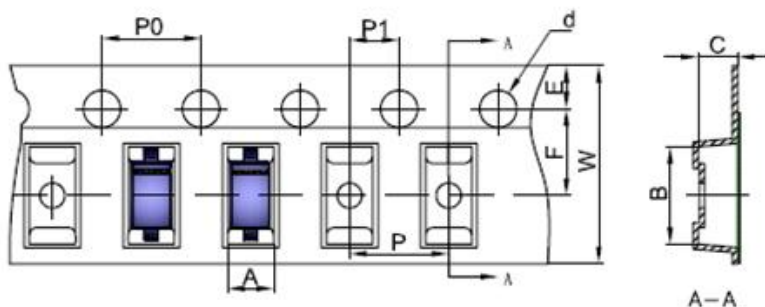
**Marking Diagram**

**MBR160HW**

Where X is Date Code

L16 = Part Name

Notes: Date code is after 1828,  
This part mark data code.

**Carrier Tape Specification SOD-123**


SYMBOL	Millimeters	
	Min.	Max.
A	1.80	1.90
B	3.89	3.99
C	1.52	1.62
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30



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