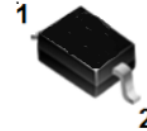
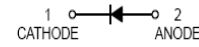




### Features

- Low reverse current
- Low power loss
- High efficiency
- Low stored charge, majority carrier conduction
- Highly stable oxide passivated junction



### Mechanical Data

- Case: SOD-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

**SOD-323**

### Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
MBR160SH	SOD-323	3000 pcs / Tape & Reel	160H

### Maximum Ratings (@ T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	60	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	60	V
DC Reverse Voltage	V <sub>R</sub>	60	V
RMS Reverse Voltage	V <sub>RMS</sub>	42	V
Maximum Average Forward Output Current	I <sub>F(AV)</sub>	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I <sub>FSM</sub>	20	A

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air <sup>°2</sup>	R <sub>θJA</sub>	365	°C/W
Thermal Resistance Junction-to-Case <sup>°2</sup>	R <sub>θJC</sub>	189	°C/W
Thermal Resistance Junction-to-Lead <sup>°2</sup>	R <sub>θJL</sub>	258	°C/W
Operating Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ +150	°C



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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 0.1\text{A}$	-	-	0.45	V
		$I_F = 0.7\text{A}$	-	-	0.58	V
		$I_F = 1\text{A}$	-	-	0.65	V
		$I_F = 3\text{A}$	-	-	1.00	V
Maximum Peak Reverse Current *1	$I_R$	$V_R = 60\text{V}, T_J = 25^\circ\text{C}$	-	-	50	$\mu\text{A}$
		$V_R = 60\text{V}, T_J = 125^\circ\text{C}$	-	-	5	mA

Notes:

1. Pulse test: pulse width =  $300\mu\text{s}$ , duty cycle  $\leq 2\%$
2. The data tested by surface mounted on a  $15\text{mm} \times 15\text{mm} \times 1\text{mm}$  FR4-epoxy P.C.B

## Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

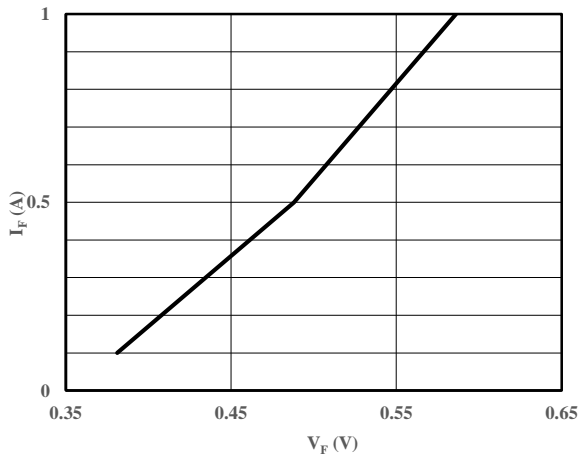


Fig 1 Forward Characteristics

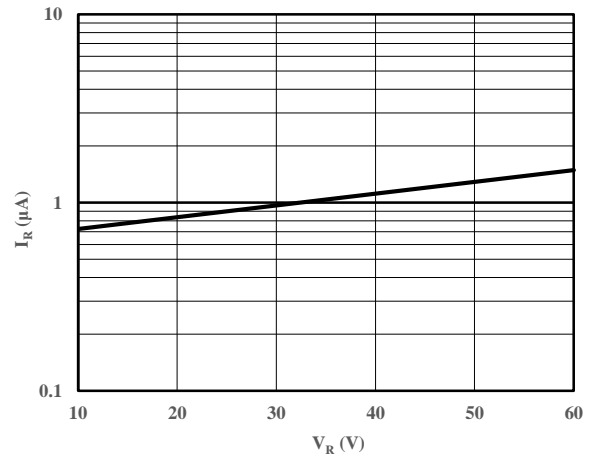
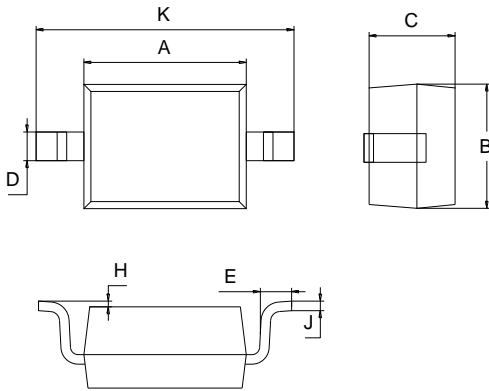


Fig 2 Typical Reverse Characteristic



## Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

## Mounting Pad Layout (Unit: mm)

### SOD-323

