



Features

- Extremely fast switching
- Very low forward voltage

Mechanical Data

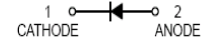
- Case: SOD-123, SOD-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOD-123



SOD-323



Part Number	Package	Shipping Quantity	Marking Code
MBR0520	SOD-123	3000 pcs / Tape & Reel	R2
MBR0520S	SOD-323	3000 pcs / Tape & Reel	R2

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
RMS Reverse Voltage	V_{RMS}	14	V
Maximum Average Forward Output Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	10	A

Parameter	Symbol	MBR0520	MBR0520S	Unit
Power Dissipation	P_D	500	250	mW
Operating junction Temperature	T_J	150		°C
Storage Temperature Range	T_{STG}	-55 ~ +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	$I_F = 0.1\text{A}$	-	-	0.375	V
		$I_F = 0.5\text{A}$	-	-	0.44	
Maximum Peak Reverse Current	I_R	$V_R = 20\text{V}$	-	-	20	μA

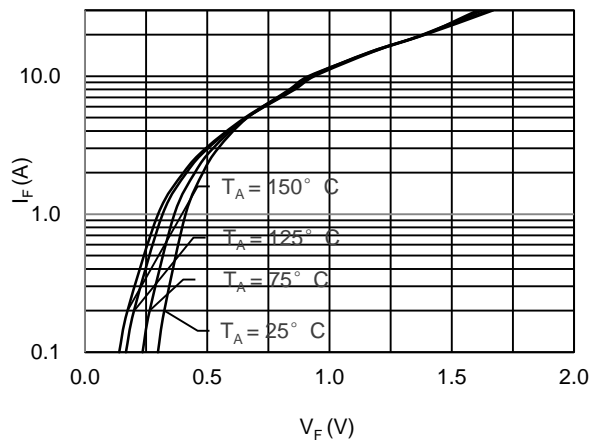


Fig. 1 Forward Characteristics

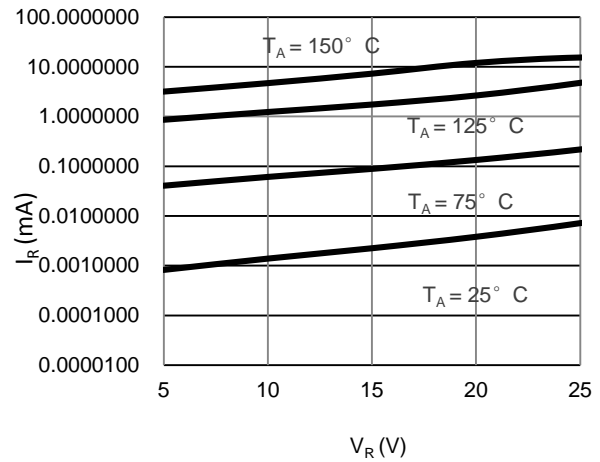
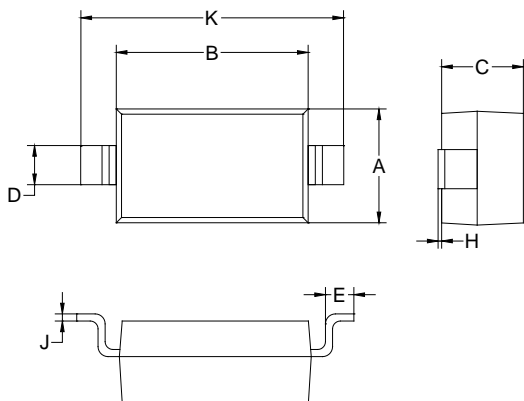
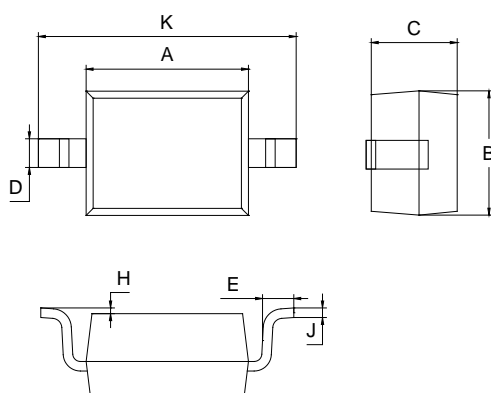


Fig. 2 Typical Reverse Characteristic

Package Outline Dimensions (Unit: mm)



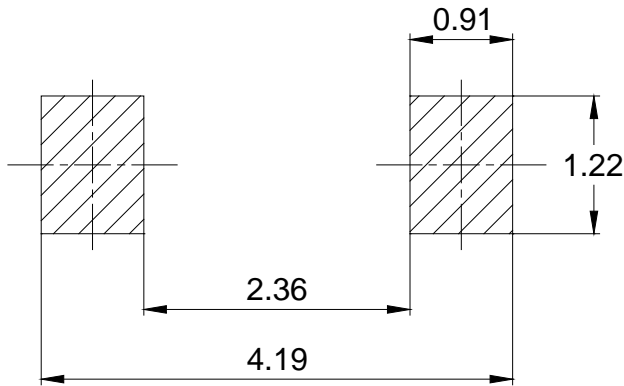
SOD-123		
Dimension	Min.	Max.
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85



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



SOD-123



SOD-323

