



## Features

- Average Rectified Output Current:  $I_O=500\text{mA}$
- Power Dissipation of 410mw

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MBR0520	SOD-123	R2	3000
MBR0530	SOD-123	R3	3000
MBR0540	SOD-123	R4	3000
MBR0560	SOD-123	R6	3000
MBR0580	SOD-123	R8	3000



SOD-123



## Maximum Ratings (Ta=25°C unless otherwise noted)

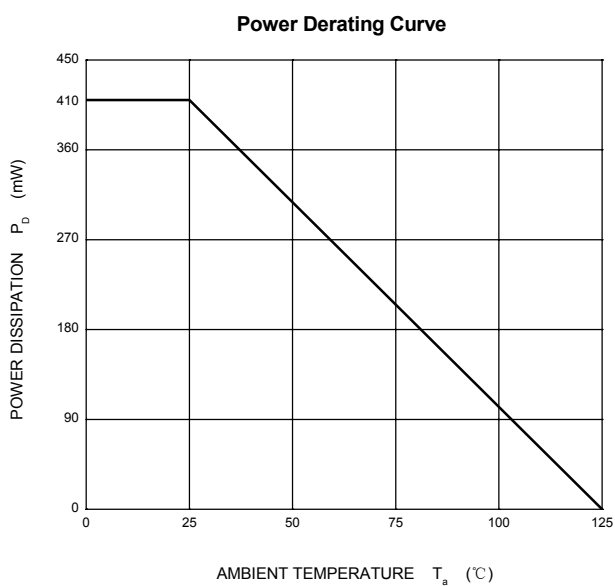
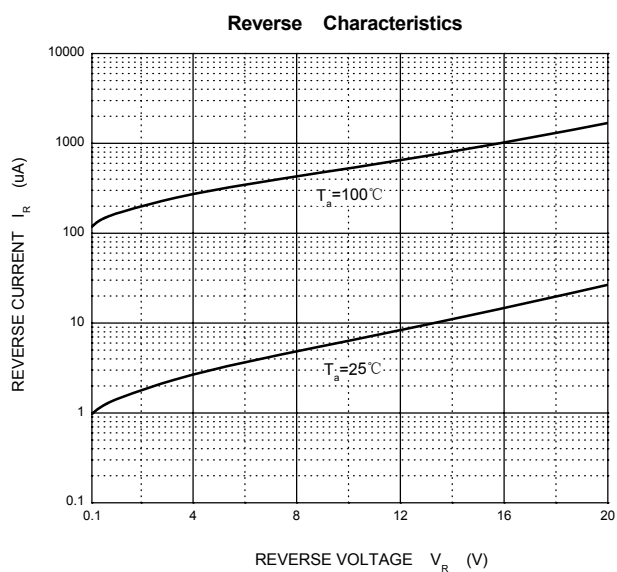
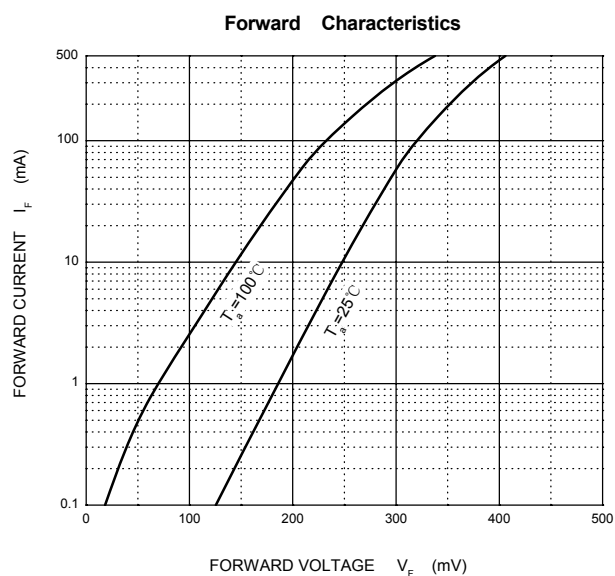
Parameter	Symbol	MBR 0520	MBR 0530	MBR 0540	MBR 0560	MBR 0580	Unit
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	60	80	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	42	56	
Mean rectifying current	$I_O$	0.5					A
Non-repetitive Peak forward surge current @t=8.3ms	$I_{FSM}$	5.5					A
Power Dissipation	$P_d$	410					mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	244					°C/W
Operating Junction Temperature Range	$T_j$	-40 ~ +125					°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150					°C

## Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage MBR0520 MBR0530 MBR0540 MBR0560 MBR0580	$V_F$			0.45 0.55 0.55 0.70 0.80	V	$I_F=500\text{mA}$
Reverse current MBR0520 MBR0530 MBR0540 MBR0560 MBR0580	$I_R$			80	$\mu\text{A}$	$V_R=20\text{V}$ $V_R=30\text{V}$ $V_R=40\text{V}$ $V_R=60\text{V}$ $V_R=80\text{V}$
Capacitance between terminals	$C_T$		30		pF	$V_R=4\text{V}$ , $f=1\text{MHz}$

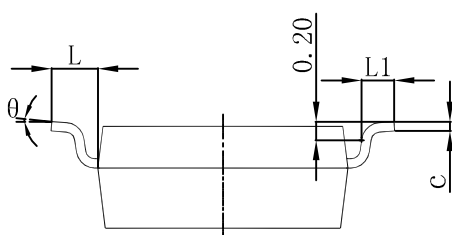
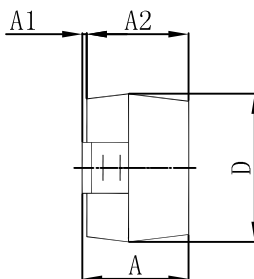
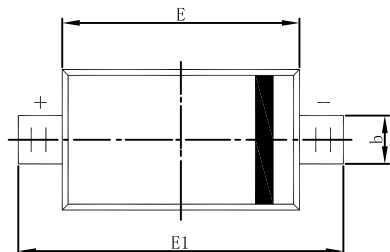


## Typical Characteristics

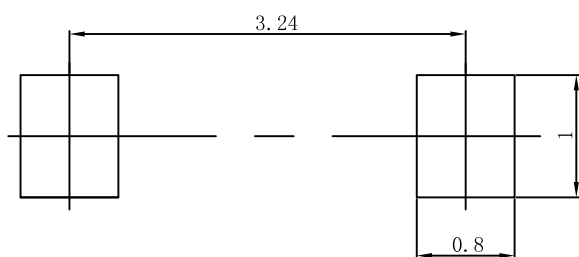




## SOD-123 Package Outline Dimensions



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°



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.



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