FEATURES

- Average Rectified Output Current:I_O=500mA
- Power Dissipation of 410mw

SOD-123

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MBR0520T1G	SOD-123	R2	3000
MBR0530T1G	SOD-123	R3	3000
MBR0540T1G	SOD-123	R4	3000
MBR0560T1G	SOD-123	R6	3000
MBR0580T1G	SOD-123	R8	3000

Maxmim Ratings (Ta=25℃unless otherwise noted)

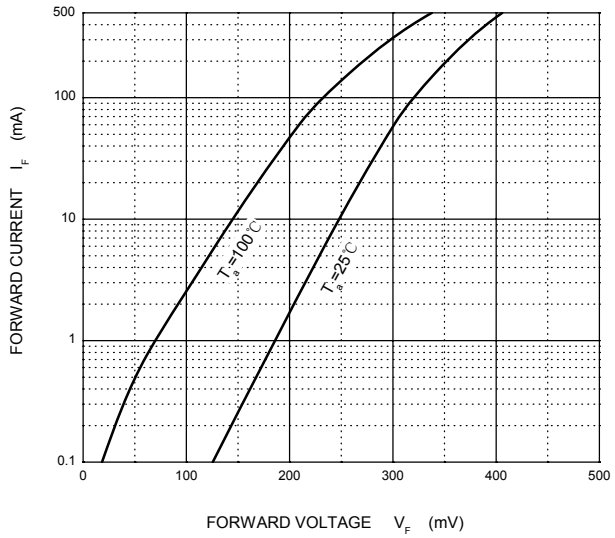
Parameter	Symbol	0520 T1G	0530 T1G	0540 T1G	0560 T1G	0580 T1G	Unit
Maximum recurrent peak reverse voltage **Maximum RMS voltage**	V_{RRM} V_{RMS}	20 14	30 21	40 28	60 42	80 56	V
Mean rectifying current	I_O	0.5					A
Non-repetitive Peak forward surge current @t=8.3ms	I_{FSM}	5.5					A
Power Dissipation	Pd	410					mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	244					℃/W
Operating Junction Temperature Range	T_j	-40 ~ +125					℃
Storage Temperature Range	T_{stg}	-55 ~ +150					℃

Electrcal Charcteristics (Ta=25℃unless otherwise specified)

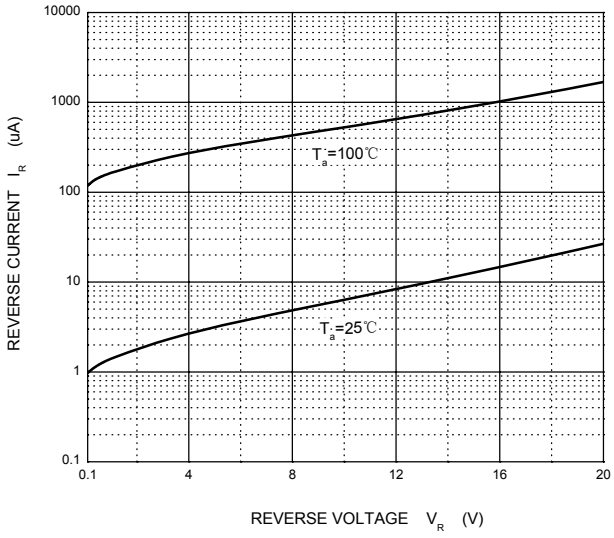
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage						
MBR0520T1G	V_F			0.45	V	I_F=500mA
MBR0530T1G				0.55		
MBR0540T1G				0.55		
MBR0560T1G				0.70		
MBR0580T1G				0.80		
Reverse current						
MBR0520T1G	I_R			80	μA	V_R=20V
MBR0530T1G						V_R=30V
MBR0540T1G						V_R=40V
MBR0560T1G						V_R=60V
MBR0580T1G						V_R=80V
Capacitance between terminals	C_T		30		pF	V_R=4V, f=1MHZ

Typical Characteristics

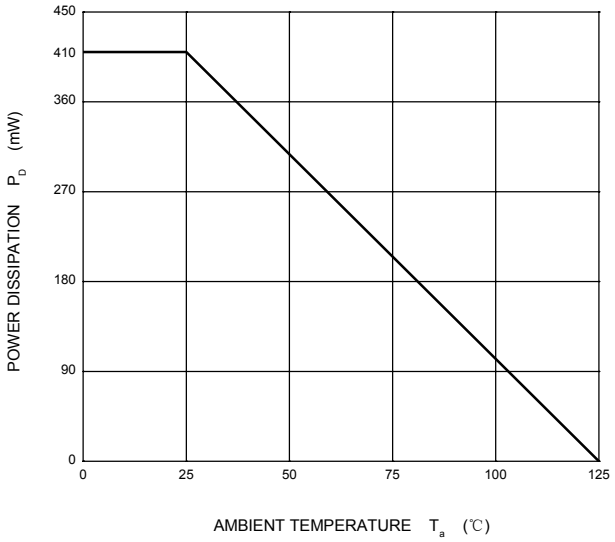
Forward Characteristics



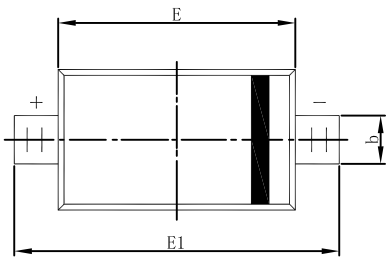
Reverse Characteristics

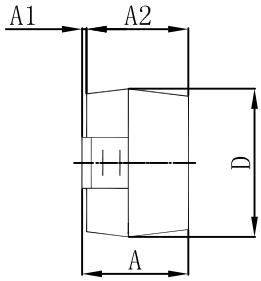


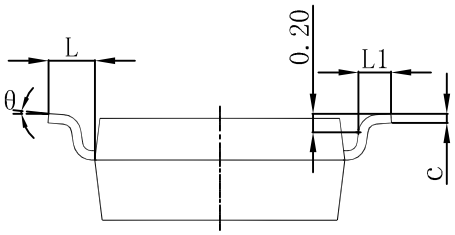
Power Derating Curve



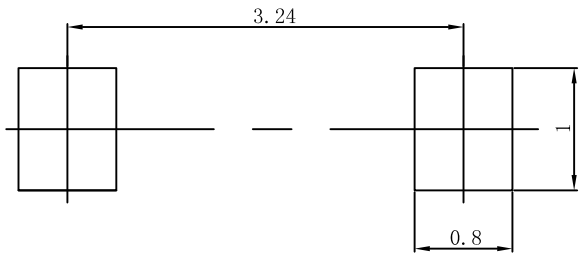
SOD-123 Package Outline Dimensions







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:±0.05mm.
3.The pad layout is for reference purposes only.

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