



1. Features

SOD-123

- Low forward voltage



2. Mechanical Data

- Case:Molded Plastic,SOD-123.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking:MB
- Marking:marked on body.

3. Maximum Ratings

Electrical Characteristics Rating at 25℃ ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Reverse Voltage	$V_R$	30	V
Forward Current	$I_F$	200	mA
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Non-Repetitive Peak Forward Current $t = 10ms$	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	230	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	435	℃/W
Junction Temperature	$T_J$	-65 to+125	℃
Storage Temperature Range	$T_{stg}$	-65 to+150	℃

4. Electrical Characteristics ( $T_A=25^{\circ}C$  unless otherwise noted)

Parameters	Symbol	Cindition	Min	TYP	Max	Unit
Forward Voltage	$V_F$	$I_F = 1mA$	-	-	0.32	V
		$I_F = 10mA$			0.4	
		$I_F = 30mA$			0.5	
		$I_F = 100mA$			0.8	
Reverse Current	$I_R$	$V_R = 25V$	-	-	2	μA
Capacitance between terminals	$C_T$	$V_R = 1\text{ V}, f = 1\text{ MHz}$	-	-	10	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10mA,V_R=6V,$ $R_L=100\Omega$	-	-	6	ns



5. Rating And Characteristic Curves

Fig.1 Forward Characteristics

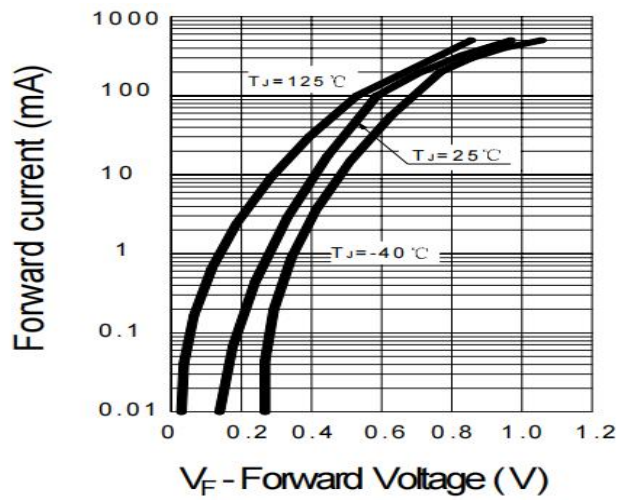


Fig.2 Reverse Characteristics

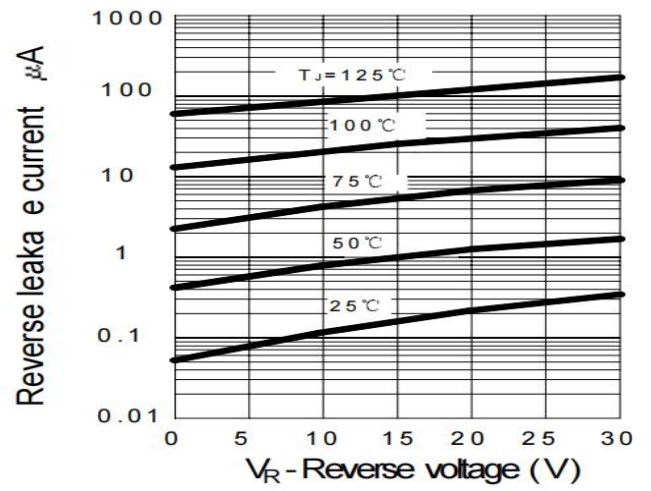


Fig.3 Capacitance Characteristics

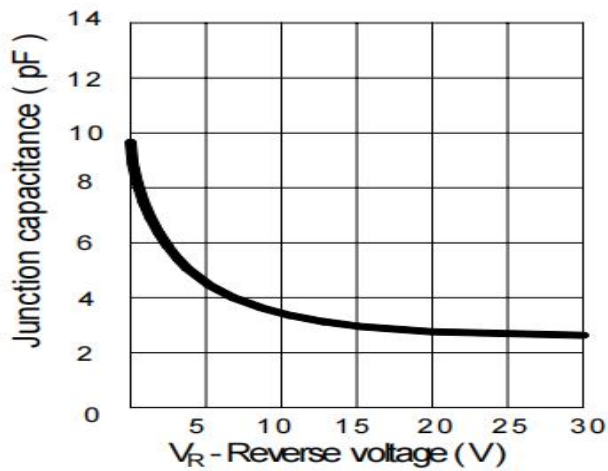
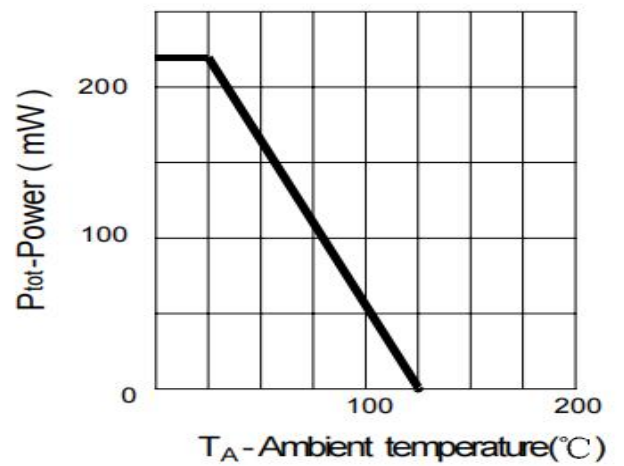
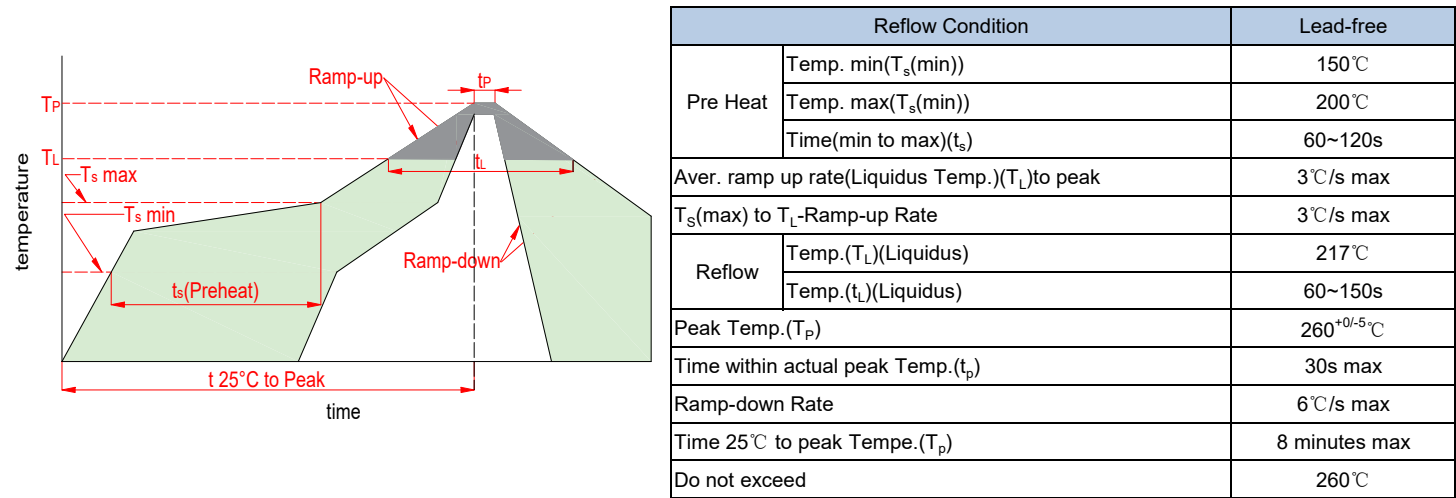


Fig.4 Power Derating Curve

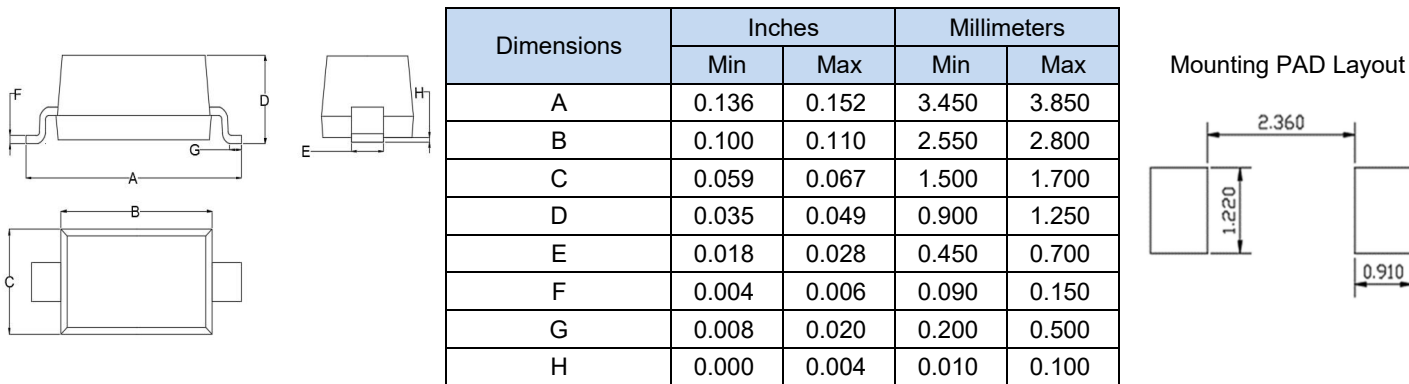




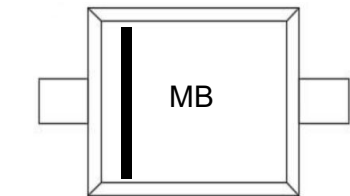
6. Soldering Parameters



7. Dimensions



8. Part Marking System



9. Package Information

Package	Type	Tape Width (mm)	Quantity(pcs)
SOD-123	BAT54W1	8	3000



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