



## Features

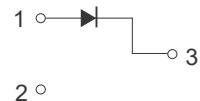
- Average Rectified Output Current:  $I_O = 150\text{mA}$
- Power Dissipation of  $225\text{mW}$

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
SMMBD701LT1G	SOT-23	A6	3000



SOT-23



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

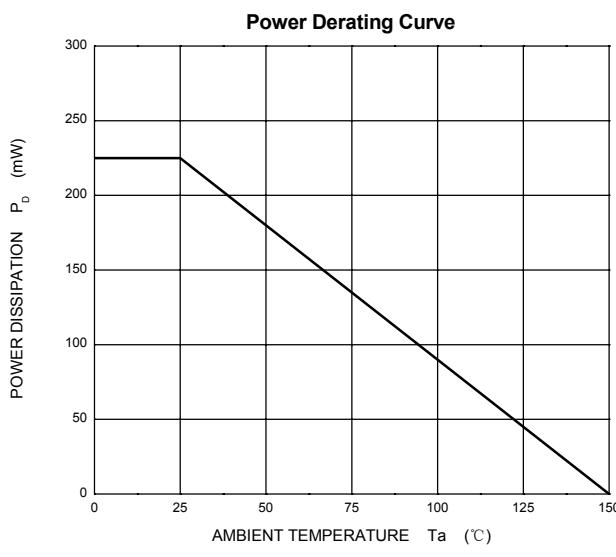
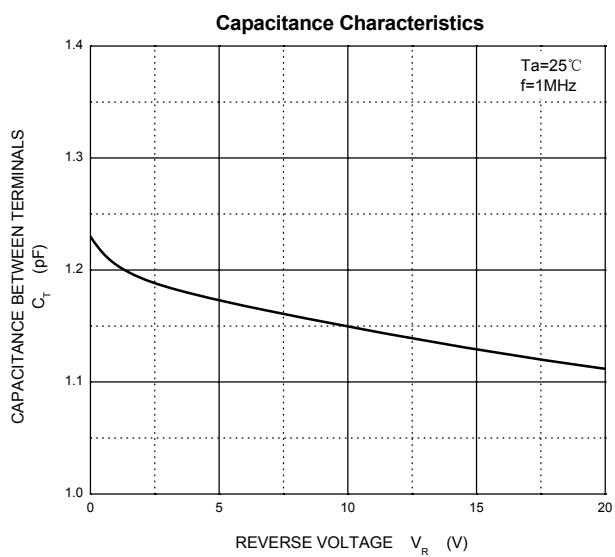
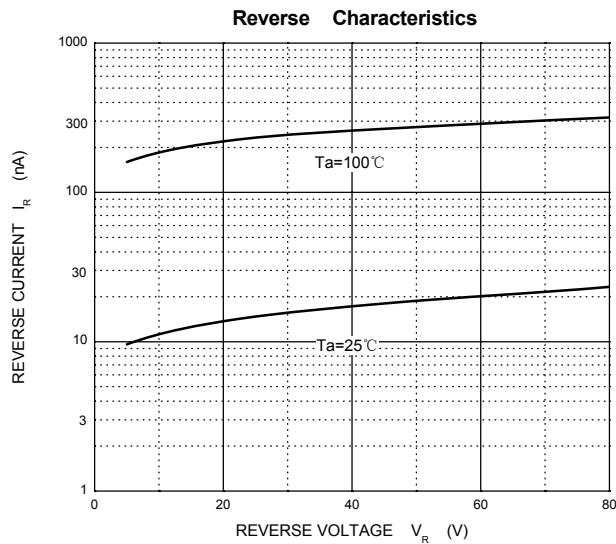
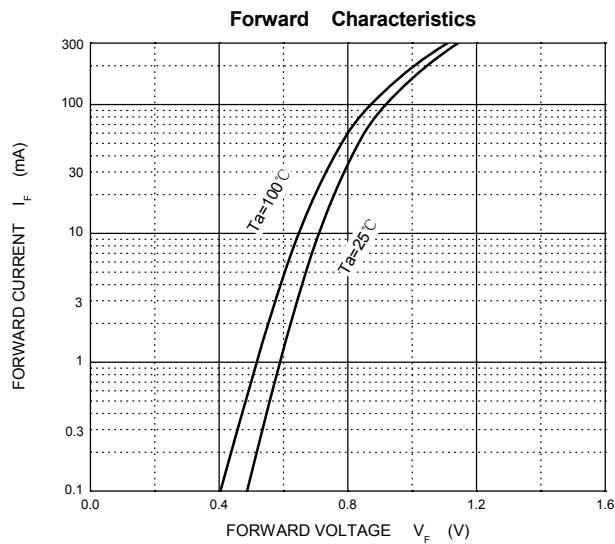
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage	$V_{RRM}$	75	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_d$	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{STG}$	-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	75		V
Reverse voltage leakage current	$I_R$	$V_R = 75\text{V}$		1	$\mu\text{A}$
Forward voltage	$V_F$	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$		0.715 0.855 1 1.25	V
Diode capacitance	$C_D$	$V_R = 0, f = 1\text{MHz}$		2	pF
Reveres recovery time	$t_{rr}$	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		6	ns

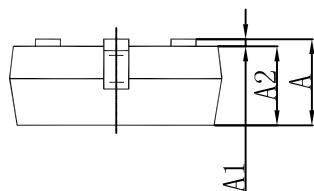
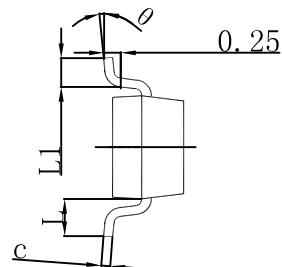
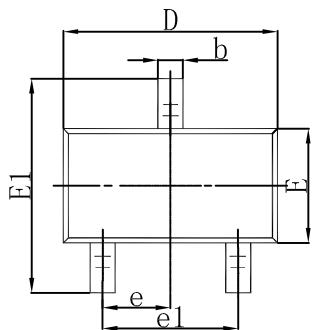


## Typical Characteristics



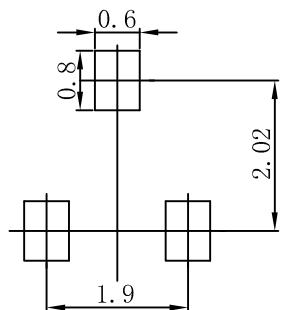


## SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
$\theta$	0°	8°	0°	8°

## SOT-23 Suggested Pad Layout



### Note:

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



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