

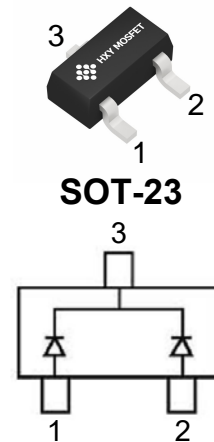


## Features

- Peak Forward Current:  $I_{FM}=200\text{mA}$
- Power Dissipation of 200mw

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAS40-05	SOT-23	45	3000



## Maximum Ratings ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

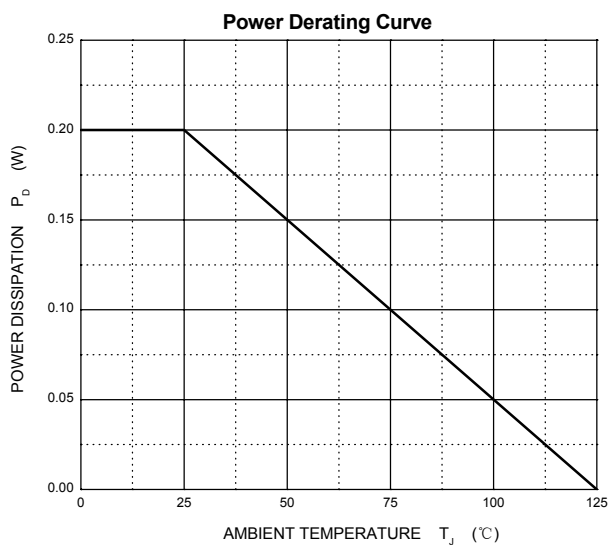
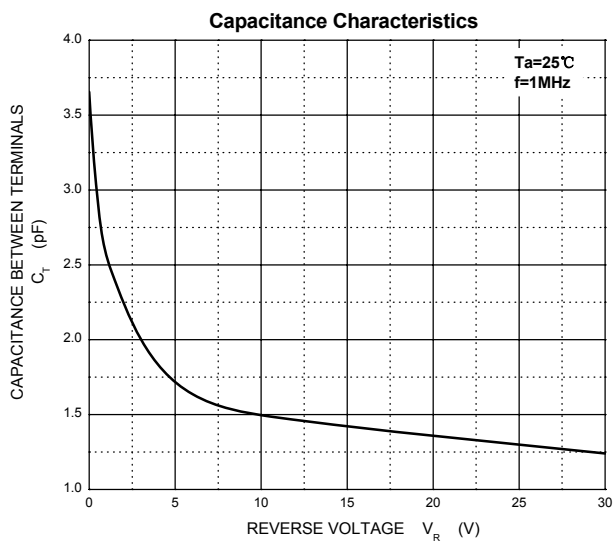
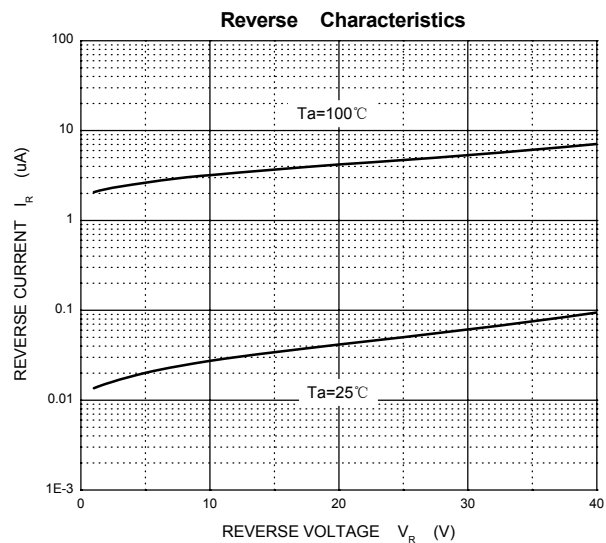
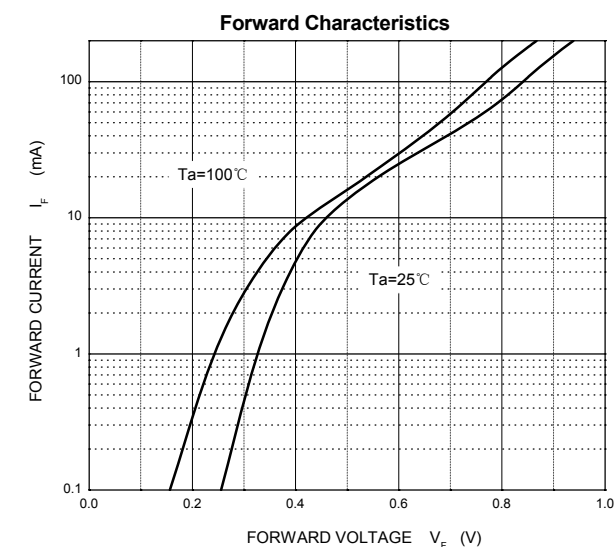
Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	40	V
Forward Continuous Current	$I_{FM}$	200	mA
Average Rectified Output Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t = 8.3\text{ms}$	$I_{FSM}$	0.6	A
Power Dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature	$T_J$	125	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55~+150	$^{\circ}\text{C}$

## Electrical Characteristics ( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	40		V
Reverse voltage leakage current	$I_R$	$V_R=30\text{V}$		200	nA
Forward voltage	$V_F$	$I_F=1\text{mA}$ $I_F=40\text{mA}$		380 1000	mV
Diode capacitance	$C_D$	$V_R=0, f=1\text{MHz}$		5	pF
Reverse recovery time	$t_{rr}$	$I_{rr}=1\text{mA}, I_R=I_F=10\text{mA}$ $R_L=100\Omega$		5	ns

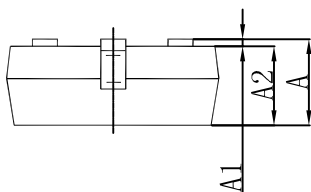
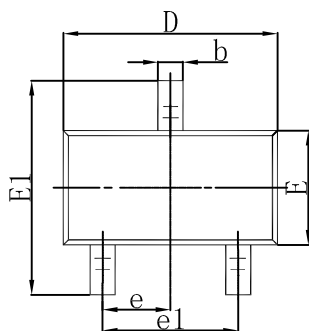


## Typical Characteristics



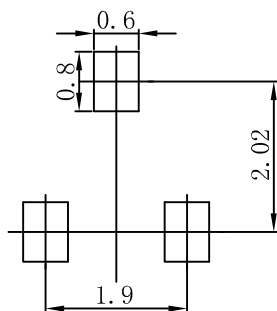


## SOT-23 Package Outline Dimensions



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
θ	0°	8°	0°	8°

## SOT-23 Suggested Pad Layout



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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