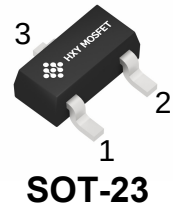




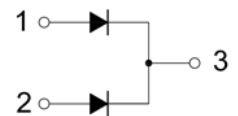
Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAS40C_R1_00001	SOT-23	JA	3000



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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage DC Blocking Voltage	V_{RM} V_R	50	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	225	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

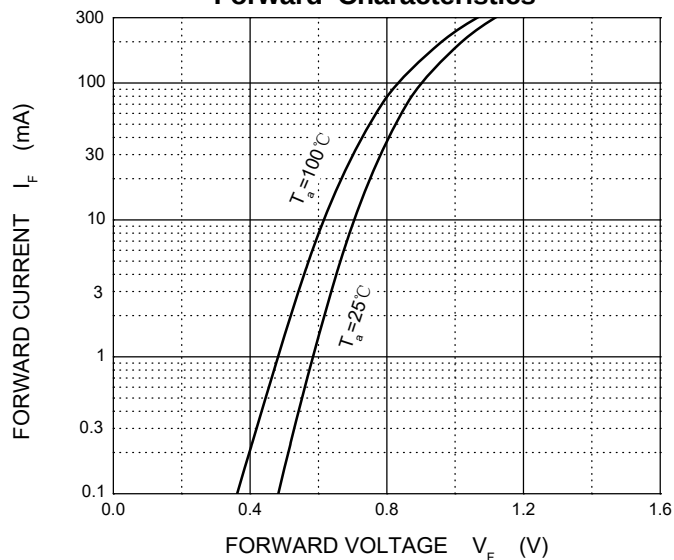
Electrical Characteristics(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 5\mu A$	50		V
Reverse voltage leakage current	I_R	$V_R = 50V$		0.1	μA
Forward voltage	V_F	$I_F = 100mA$		1	V
Diode Capacitance	C_D	$V_R = 0, f = 1MHz$		2	pF
Reveres recovery time	t_{rr}	$I_F = I_R = 10mA, R_L = 100\Omega,$ $I_{rr} = 0.1 \times I_R$		4	ns

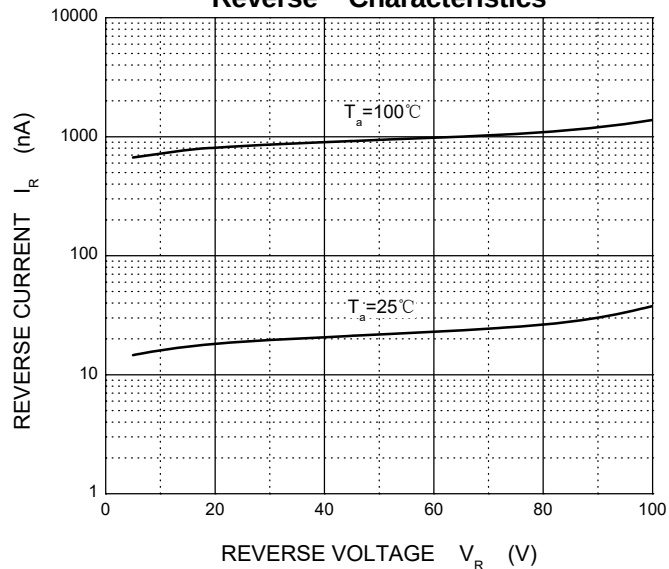


Typical Characteristics

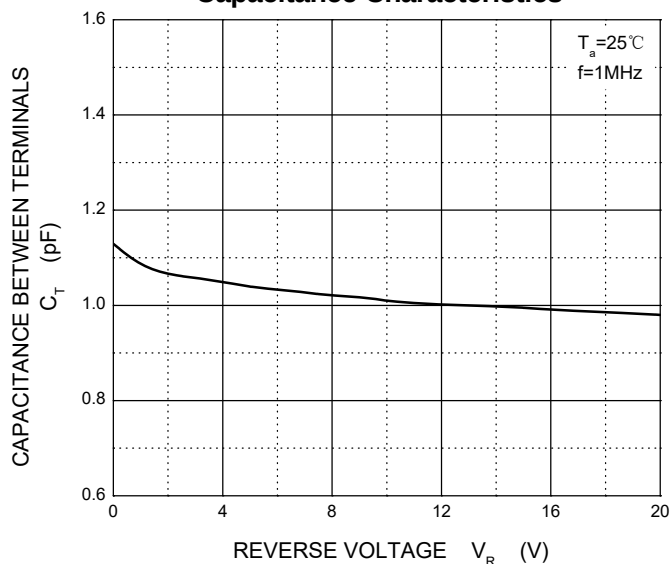
Forward Characteristics



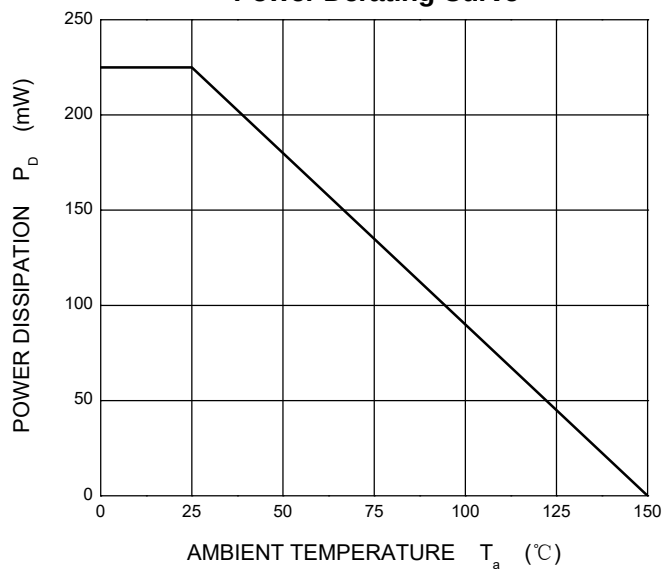
Reverse Characteristics



Capacitance Characteristics

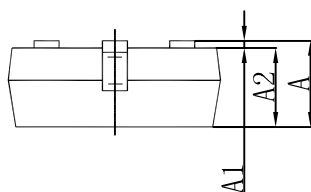
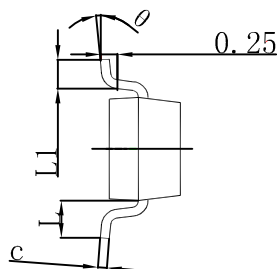
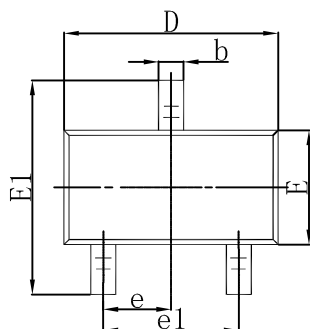


Power Derating Curve



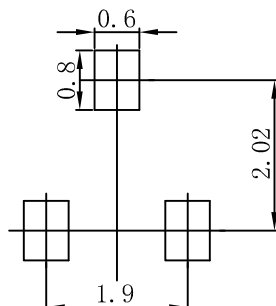


SOT-23 Package Outline Dimensions



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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