

## **FEATURES**

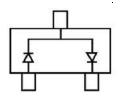
- Peak Forward Current: I<sub>FM</sub>=200 mA
- Power Dissipation of 200mw



### **SOT-23**

# **Package Marking and Ordering Information**

Product ID	Pack	Marking	Qty(PCS)
BAS40-04	SOT-23	44	3000



# MAXIMUM RATINGS (Ta=25 unless otherwise noted)

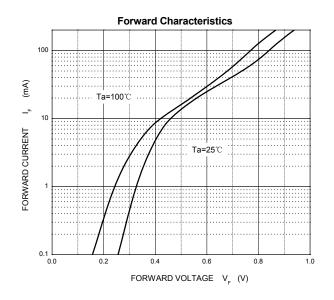
Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	V
Forward Continuous Current	I <sub>FM</sub>	200	mA
Average Rectified Output Current	Io	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I <sub>FSM</sub>	0.6	А
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature	TJ	125	$^{\circ}$
Storage Temperature	T <sub>STG</sub>	-55~+150	°C

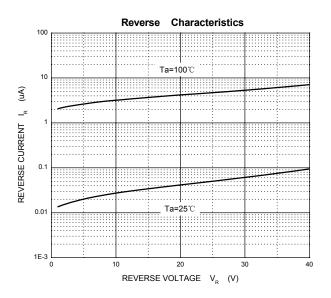
## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25 unless otherwise specified)

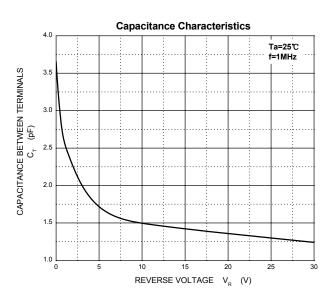
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I <sub>R</sub> =10µA	40		V
Reverse voltage leakage current	I <sub>R</sub>	V <sub>R</sub> =30V		200	nA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1mA I <sub>F</sub> =40mA		380 1000	mV
Diode capacitance	$C_D$	V <sub>R</sub> =0,f=1MHz		5	pF
Reverse recovery time	t <sub>rr</sub>	$I_{rr}$ =1mA, $I_{R}$ = $I_{F}$ =10mA $R_{L}$ =100 $\Omega$		5	ns

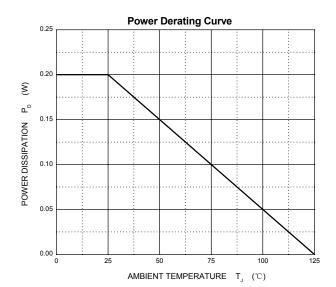


## **Typical Characteristics**



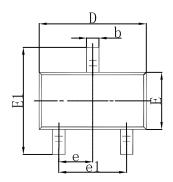


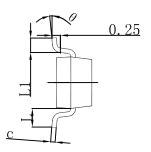


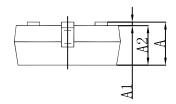




## **SOT-23 Package Outline Dimensions**

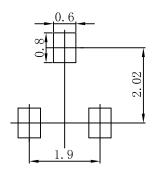






Symbol	Dimensions In Millimeters		Dimensions In Inches		
	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 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:± 0.05mm.
  3.The pad layout is for reference purposes only.



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