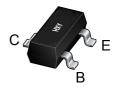


#### **FEATURES**

Collector Current: I<sub>C</sub>=0.15A

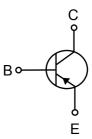
Power Dissipation of 200mw



**SOT-23** 

# **Package Marking and Ordering Information**

Product ID	Pack	Marking	Qty(PCS)
2SA1015	SOT-23	ВА	3000



## MAXIMUM RATINGS (Ta=25 unless otherwise noted)

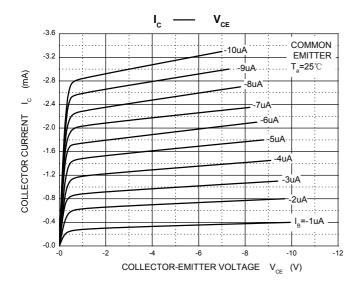
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>c</sub>	-150	mA
Collector Power Dissipation	P <sub>c</sub>	200	mW
Thermal Resistance From Junction To Ambient	R <sub>OJA</sub>	625	°CM
Junction Temperature	T <sub>j</sub>	150	℃
Storage Temperature	T <sub>stg</sub>	-55∼+150	℃

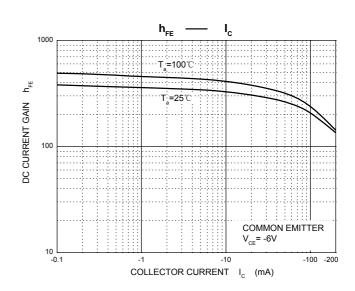


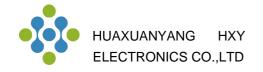
### ELECTRICAL CHARACTERISTICS (Ta=25 unless otherwise specified)

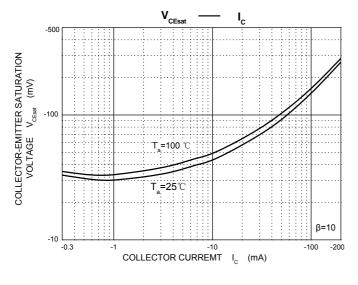
Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -100u A,I <sub>E</sub> =0	-50			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -0.1mA, I <sub>B</sub> =0		-50		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -100 u A, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-50V ,I <sub>E</sub> =0			-0.1	μΑ
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = -50V , I <sub>B</sub> =0			-1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =- 5V, I <sub>C</sub> =0			-0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =-6V,I <sub>C</sub> = -2mA	130		400	
Collector-emitter saturation voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA			-0.3	V
Base-emitter saturation voltage	V <sub>BE</sub> (sat)	I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA			-1.1	V
Transition frequency	f⊤	V <sub>CE</sub> =-10V,I <sub>C</sub> = -1mA f=30MHz	80			MHz

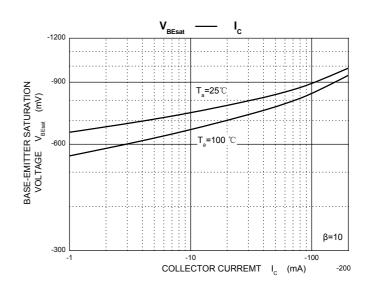
#### **Typical Characteristics**

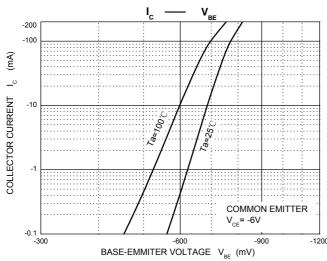


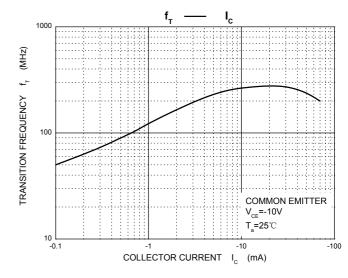


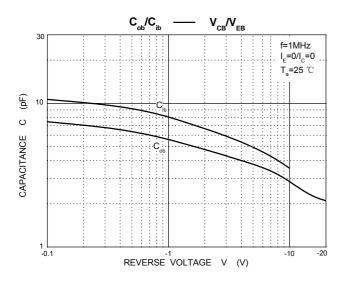


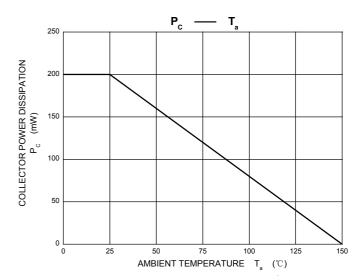






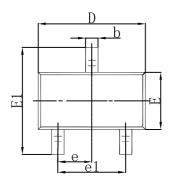


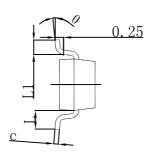


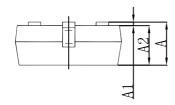




## **SOT-23 Package Outline Dimensions**

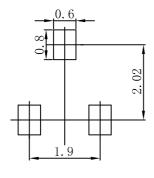






Symbol	Dimensions In Millimeters		Dimensions In Inches		
	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950	TYP	0.037	7 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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