



浩畅半导体
www.szhaochang.cn

BCX70J, K TRANSISTOR (NPN)

SOT-23 Plastic-Encapsulate Transistors

产
品
规
格
书

承
认
书

客户确认：

公司签章：

部门

工程部

品保部

采购部

签名

日期



SOT-23 Plastic-Encapsulate Transistors

BCX70J,K TRANSISTOR (NPN)

SOT-23



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

FEATURES

- Low current
- Low voltage

MARKING : BCX70J: AJ, BCX70K:AK

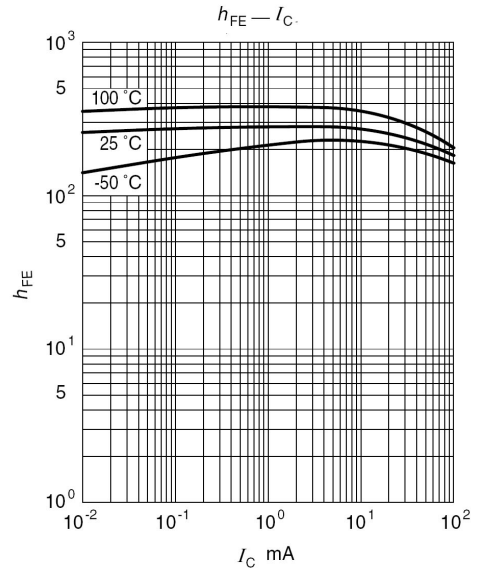
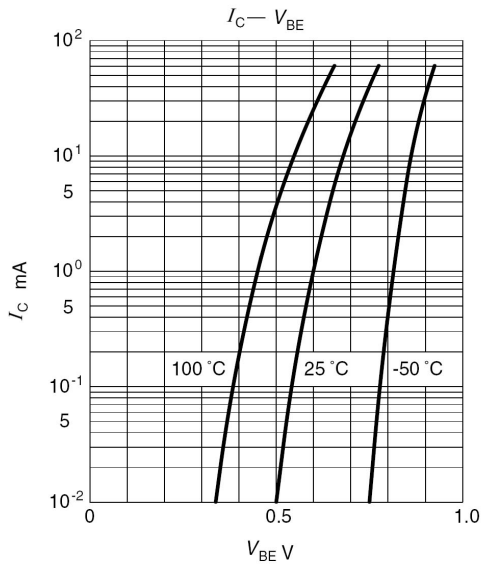
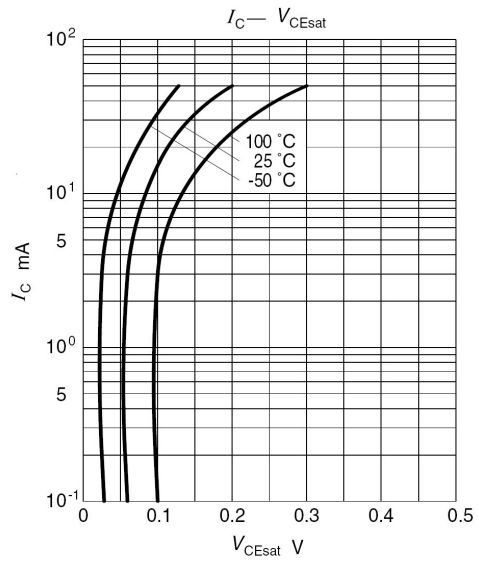
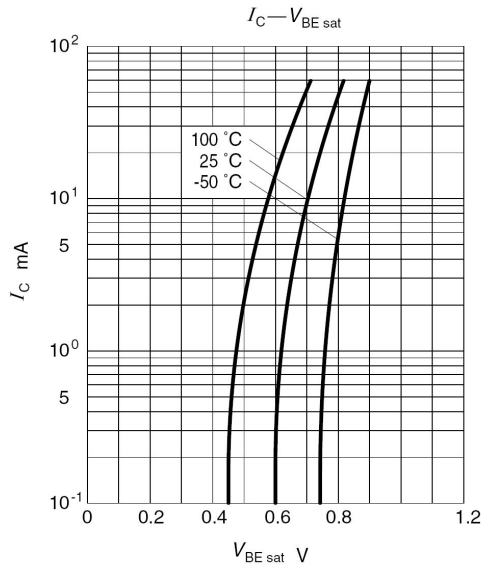
MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	45	V
V _{CEO}	Collector-Emitter Voltage	45	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	200	mA
P _C	Collector Power Dissipation	250	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

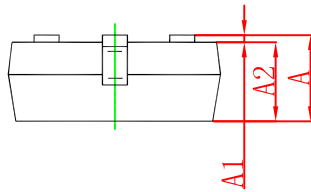
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	45			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =2mA, I _B =0	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1μA, I _C =0	5			V
Collector cut-off current	I _{CES}	V _{CE} =45V, V _{BE} =0			20	nA
DC current gain BCX70J	h _{FE1}	V _{CE} =5V, I _C =10μA	30			
	h _{FE2}	V _{CE} =5V, I _C =2mA	250		460	
	h _{FE3}	V _{CE} =1V, I _C =50mA	90			
DC current gain BCX70K	h _{FE1}	V _{CE} =5V, I _C =10μA	100			
	h _{FE2}	V _{CE} =5V, I _C =2mA	380		630	
	h _{FE3}	V _{CE} =1V, I _C =50mA	100			
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C = 10mA I _B = 0.25 mA	0.05		0.35	V
	V _{CE(sat)2}	I _C = 50mA I _B =1.25 mA	0.1		0.55	V
Base -emitter saturation voltage	V _{BE(sat)1}	I _C = 10mA I _B =-0.25 mA	0.6		0.85	V
	V _{BE(sat)2}	I _C = 50mA I _B = 1.25 mA	0.7		1.05	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =2mA	0.55		0.75	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		1.7		pF
Noise Figure	NF	V _{CE} =5V, I _C =200μA, f=1KHz, BW=200Hz, RS=2KΩ			6	dB
Gain-Bandwidth Product	f _T	V _{CE} = 5 V, I _C =10mA, f=100 MHz	100	250		MHz

Typical Characteristics

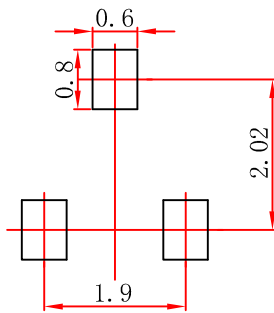


SOT-23 Package Outline Dimensions



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.