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2SB709A TRANSISTOR (PNP)

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				

SHENZHEN HAOCHANG SEMICONDUCTOR CO.,LTD.

SOT-23 Plastic-Encapsulate Transistors

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

2SB709A TRANSISTOR (PNP)

FEATURES

- For general amplification
- Complementary to 2SD601A

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-45	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current -Continuous	-100	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

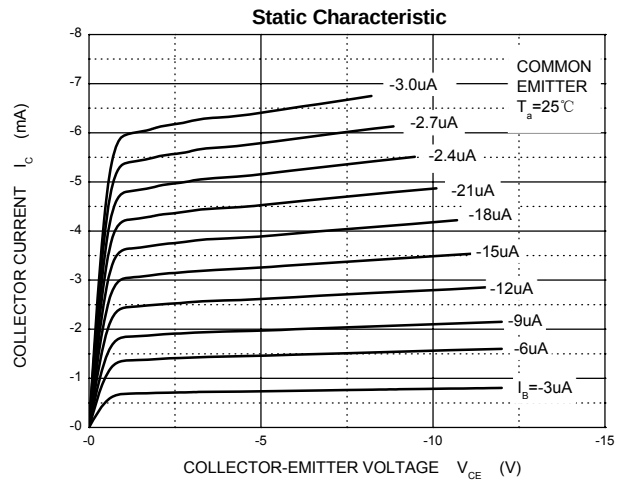
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

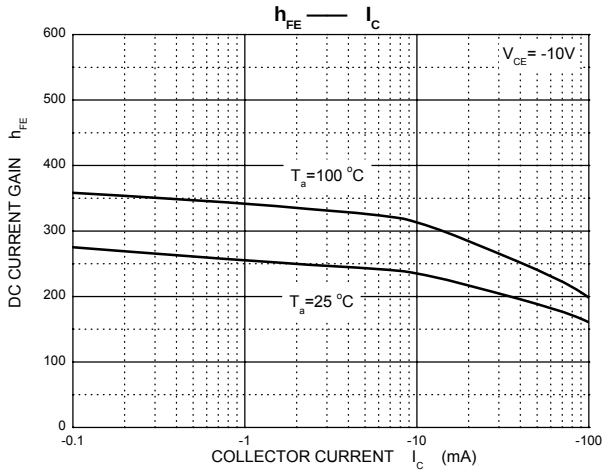
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -10 μA, I_E=0	-45		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -2mA, I_B=0	-45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -10 μA, I_C=0	-7		V
Collector cut-off current	I_{CBO}	V_{CB}= -20 V, I_E=0		-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -10V, I_B=0		-100	μA
DC current gain	h_{FE}	V_{CE}= -10V,I_C= -2mA	160	460	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=-100 mA, I_B= -10mA		-0.5	V
Transition frequency	f_T	V_{CE}= -10V, I_C= -1mA f=200MHz	60		MHz
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0 f=1MHz		2.7	pF

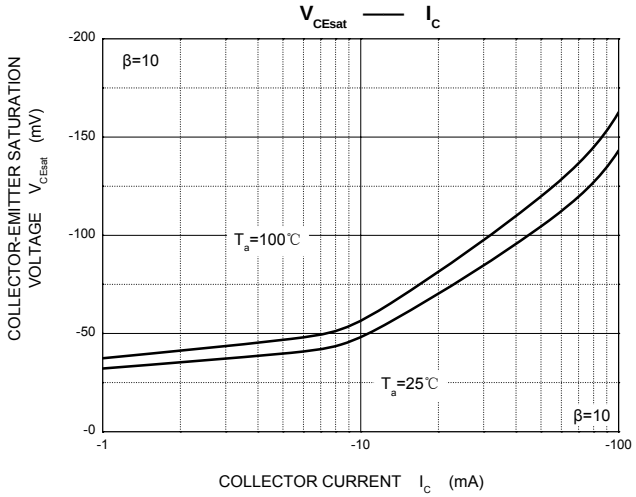
CLASSIFICATION OF H_{FE}

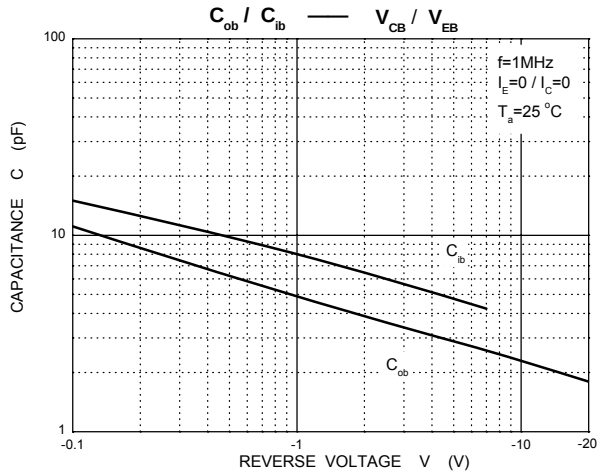
Rank	Q	R	S
Range	160-260	210-340	290-460
Marking	**BQ1**	**BR1**	**BS1**

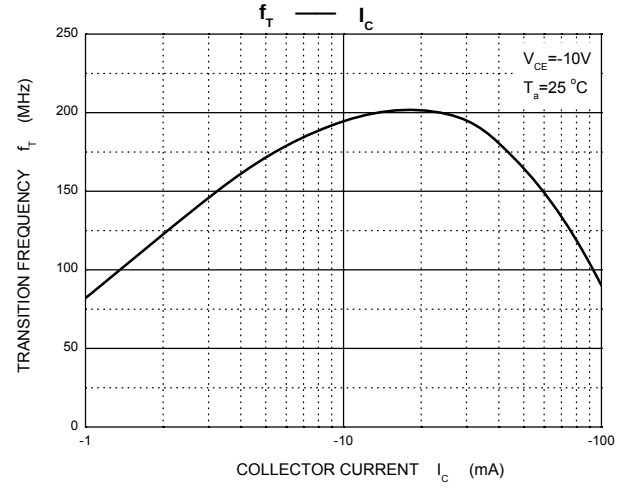
Typical Characteristics

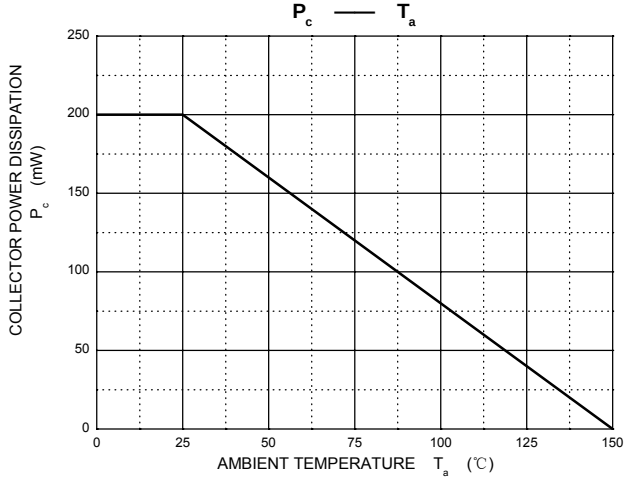




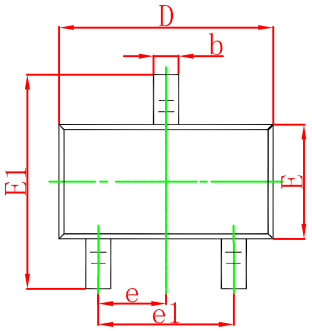


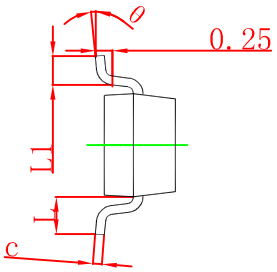


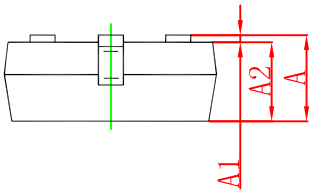




SOT-23 Package Outline Dimensions

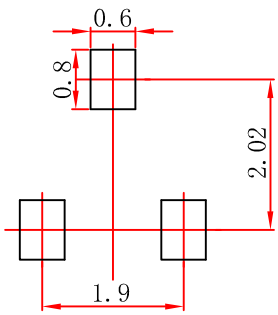






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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:± 0.05mm.
3.The pad layout is for reference purposes only.