

**SOT-23 Plastic-Encapsulate Transistors****2SB709A** TRANSISTOR (PNP)**FEATURES****Power dissipation** $P_{CM} : 0.2 \text{ W (Tamb=25}^{\circ}\text{C)}$ **SOT-23**

1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS* T_A=25°C 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	-200	mA
T _J , T _{stg}	Junction and Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

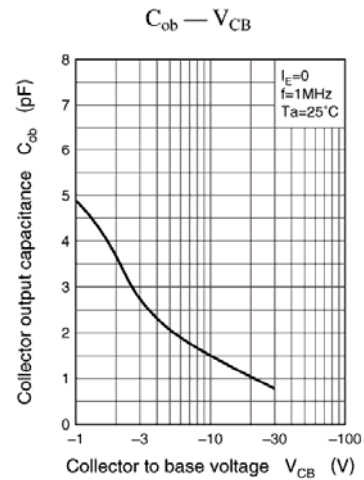
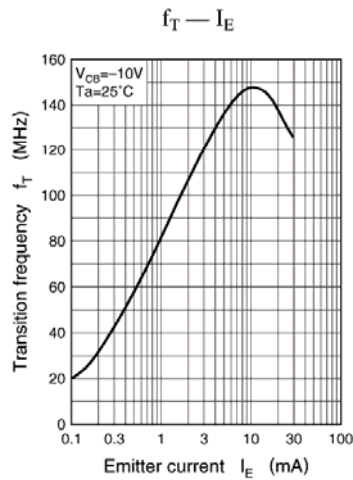
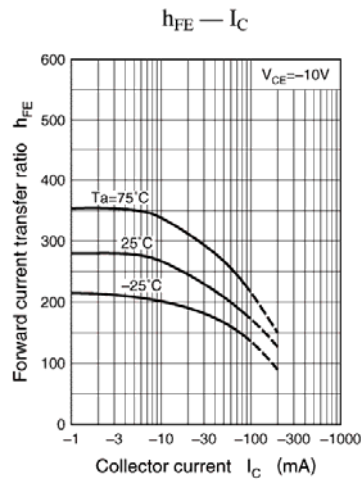
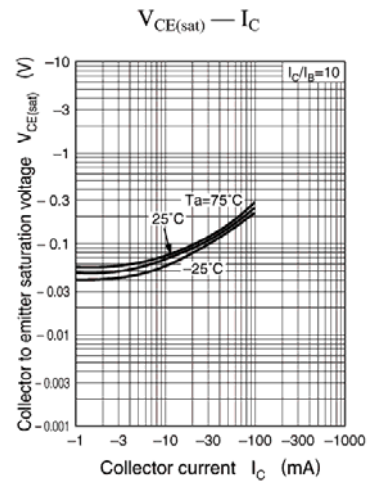
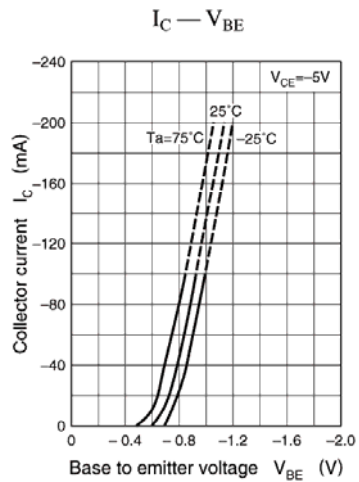
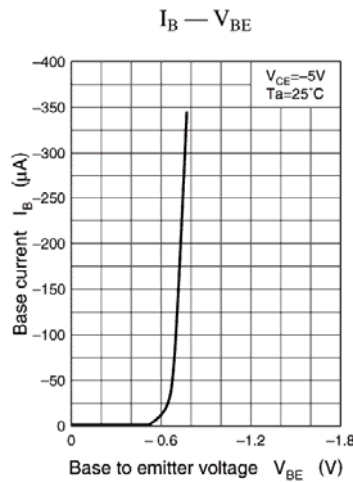
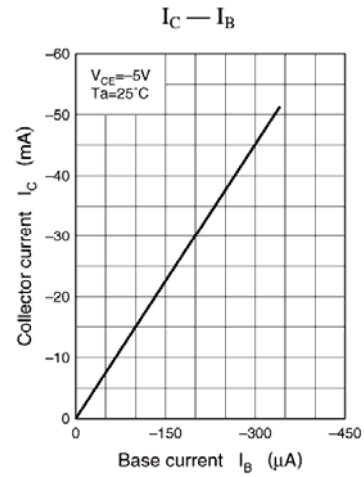
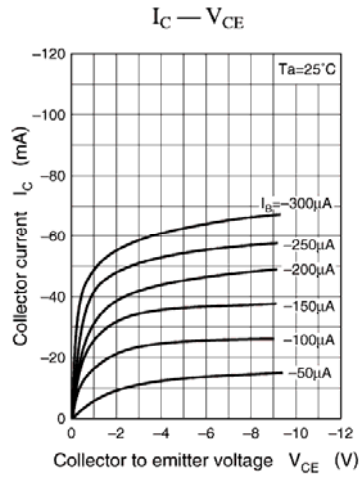
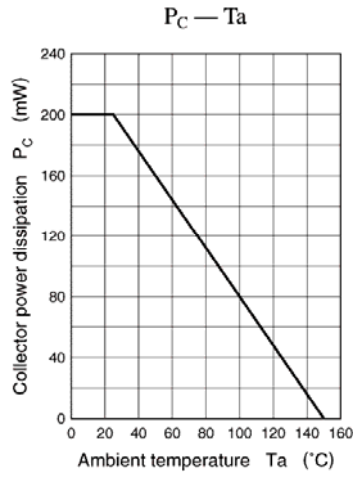
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -10 μA, I _E =0	-45		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -2 mA, I _B =0	-45		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -10 μA, I _C =0	-7		V
Collector cut-off current	I _{CBO}	V _{CB} = -20 V, I _E =0		-0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} = -10 V, 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

2SB709A



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