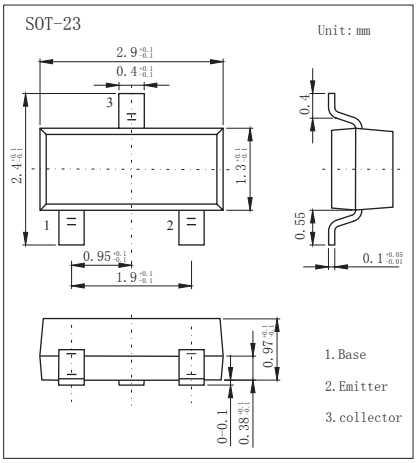
PNP Transistors

2SB709A



■ Features

- For general amplification
- Complimentary to 2SD601A.

■ Absolute Maximum Ratings Ta = 25℃

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

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-45			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -2 mA, I_B=0	-45			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-7			
Collector-base cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	uA
Collector-Emitter cut-off current	I_{CEO}	V_{CE}= -20 V , I_B=0			-100	
Emitter cut-off current	I_{EBO}	V_{EB}= -6V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100 mA, I_B=-10mA			-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-100 mA, I_B=-10mA			-1.2	
DC current gain	h_{FE}	V_{CE}= -10V, I_C= -2mA	160		460	
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz			2.7	pF
Transition frequency	f_T	V_{CE}= -10V, I_C= -1mA,f=200MHz	60			MHz

■ Classification of h_{fe}

Type	2SB709A- Q	2SB709A- R	2SB709A- S
Range	160-260	210-340	290-460
Marking	BQ1	BR1	BS1

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■ Typical Characterisitics