

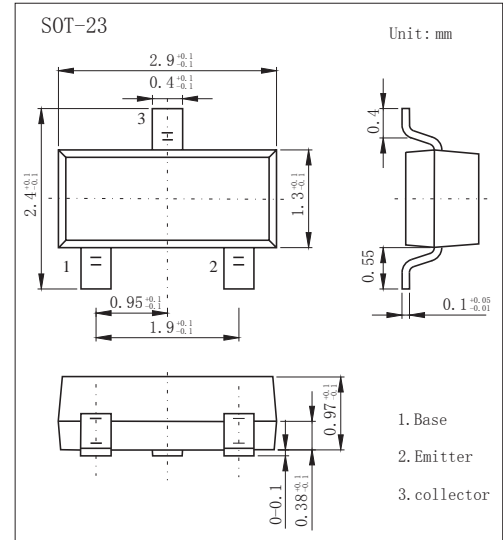
SOT-23 Plastic-Encapsulate Transistors

Features

- For general amplification
- Complimentary to 2SD601A.
- PNP Transistors

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-45	V
Collector - Emitter Voltage	V_{CE0}	-45	
Emitter - Base Voltage	V_{EB0}	-7	
Collector Current - Continuous	I_c	-100	mA
Collector Power Dissipation	P_c	200	mW
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{stg}	-55 to 150	

PACKAGE INFORMATION

Device	Package	Shipping
2SB709A	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = -100 \mu A, I_E = 0$	-45			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = -2 mA, I_B = 0$	-45			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu A, I_C = 0$	-7			
Collector-base cut-off current	I_{CB0}	$V_{CB} = -40 V, I_E = 0$			-0.1	uA
Collector-Emitter cut-off current	I_{CE0}	$V_{CE} = -20 V, I_B = 0$			-100	
Emitter cut-off current	I_{EB0}	$V_{EB} = -6V, I_C = 0$			-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

■ Typical Characteristics

