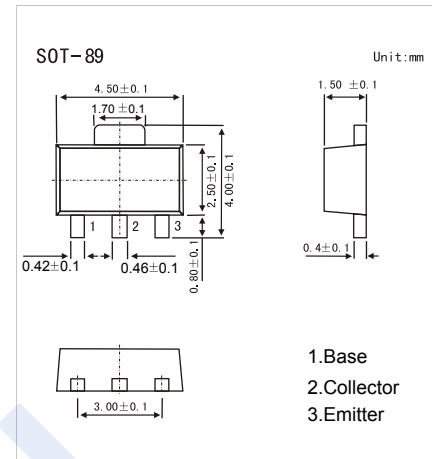


PNP Transistors

2SB1308-HF

■ Features

- Power Transistor
- Excellent DC current Gain
- Low Collector-emitter Saturation Voltage
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-30	V
Collector - Emitter Voltage	V_{CEO}	-20	
Emitter - Base Voltage	V_{EBO}	-6	
Collector Current - Continuous	I_C	-3	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-30			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}$, $I_B = 0$	-20			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -25\text{V}$, $I_E = 0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5 \text{ A}$, $I_B = -150 \text{ mA}$			-0.45	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5 \text{ A}$, $I_B = -150 \text{ mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -2\text{V}$, $I_C = -500 \text{ mA}$	82		390	
Collector output capacitance	C_{ob}	$V_{CB} = -20\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		60		pF
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_C = -50 \text{ mA}$, $f = 30\text{MHz}$		120		MHz

■ Classification of h_{FE}

Type	2SB1308-P-HF	2SB1308-Q-HF	2SB1308-R-HF
Range	82-180	120-270	180-390
Marking	BF P* _F	BF Q* _F	BF R* _F

PNP Transistors

2SB1308-HF

■ Typical Characteristics

