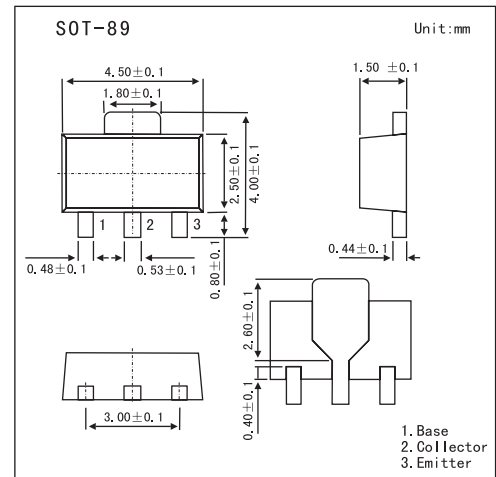


## Silicon PNP Epitaxial Planar

## 2SB1571

## ■ Features

- Low  $V_{CE(sat)}$ :  $V_{CE(sat)} \leq -0.35\text{ V}$

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-50	V
Collector to Emitter Voltage	$V_{CEO}$	-30	V
Emitter to Base Voltage	$V_{EBO}$	-6	V
Collector Current (DC)	$I_{C(DC)}$	-5	A
Collector Current (pulse) *	$I_{C(Pulse)}$	-8	A
Base Current (DC)	$I_{B(DC)}$	-0.2	A
Base Current (pulse) *	$I_{B(Pulse)}$	-0.4	A
Total Power Dissipation *	$P_T$	2	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $PW \leq 10\text{ ms}$ , Duty Cycle  $\leq 50\%$

## 2SB1571

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector Cut-off Current	IcBO	V <sub>CB</sub> = -50 V, I <sub>E</sub> = 0			-100	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = -6.0 V, I <sub>C</sub> = 0			-100	nA
DC Current Gain *	h <sub>FE1</sub>	V <sub>CE</sub> = -1.0 V, I <sub>C</sub> = -1.0 A	80			
	h <sub>FE2</sub>	V <sub>CE</sub> = -1.0 V, I <sub>C</sub> = -2.0 A	100	200	400	
Base to Emitter Voltage *	V <sub>BE</sub>	V <sub>CE</sub> = -1.0 V, I <sub>C</sub> = -0.1 A	-0.6	-0.665	-0.7	V
Collector Saturation Voltage *	V <sub>CE(sat)1</sub>	I <sub>C</sub> = -3.0 A, I <sub>B</sub> = -0.15 A		-0.17	-0.35	V
Collector Saturation Voltage *	V <sub>CE(sat)2</sub>	I <sub>C</sub> = -5.0 A, I <sub>B</sub> = -0.25 A		-0.28	-0.55	V
Base Saturation Voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> = -3.0 A, I <sub>B</sub> = -0.15 A		-0.89	-1.2	V
Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -10 V, I <sub>E</sub> = 0.5 A		150		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10 V, I <sub>E</sub> = 0, f = 1.0 MHz		100		pF
Turn-on Time	t <sub>on</sub>	I <sub>C</sub> = -2.0 A, V <sub>CC</sub> = -10 V, R <sub>L</sub> = 5.0Ω, I <sub>B1</sub> = -I <sub>B2</sub> = -0.1 A,		265		ns
Storage Time	t <sub>stg</sub>			350		ns
Fall Time	t <sub>f</sub>			50		ns

\* Pulsed: PW ≤ 350 μs, Duty Cycle ≤ 2%.

## ■ hFE Classification

Marking	HX	HY	HZ
hFE	100~200	160~320	200~400