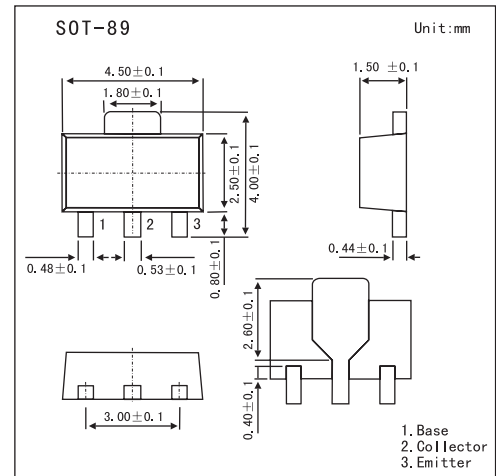


## PNP Epitaxial Planar Silicon Transistor

## 2SB1396

## ■ Features

- Adoption of FBET,MBIT processes
- Large current capacity
- Low collector to emitter saturation voltage

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-15	V
Collector-emitter voltage	$V_{CE0}$	-10	V
Emitter-base voltage	$V_{EB0}$	-7	V
Collector current	$I_C$	-3	A
Collector current (Pulse)	$I_{CP}$	-5	A
Collector dissipation *	$P_C$ *	1.3	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\* Mounted on ceramic PCB (250mm<sup>2</sup>X0.8mm)

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -12V, I_E = 0$			-100	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -6V, I_C = 0$			-100	$\mu\text{A}$
DC current Gain	$h_{FE}$	$V_{CE} = -2V, I_C = -0.5A$	140		560	
		$V_{CE} = -2V, I_C = -3A$	70			
Gain bandwidth product	$f_T$	$V_{CE} = -2V, I_C = -0.3A$		400		GHz
Output capacitance	$C_{ob}$	$V_{CE} = -10V, f = 1\text{MHz}$		26		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -1.5A, I_B = -30\text{mA}$		-220	-400	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.5A, I_B = -30\text{mA}$		-0.9	-1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-10			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-7			V

■  $h_{FE}$  Classification

Marking	BO		
	S	T	U
$h_{FE}$	140~280	200~400	280~560