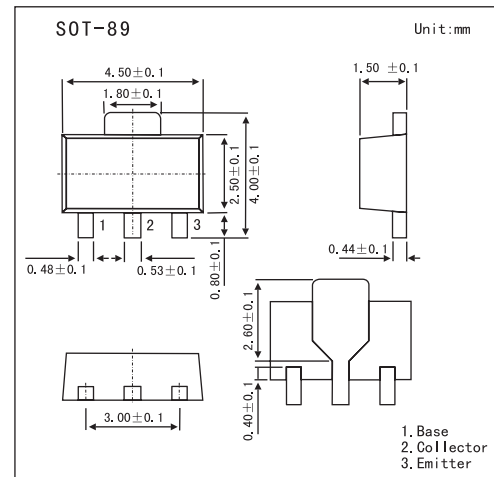


## PNP Epitaxial Planar Silicon Transistors

## 2SB1119

## ■ Features

- Very small size making it easy to provide highdensity, small-sized hybrid IC:s.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-25	V
Collector-emitter voltage	$V_{CEO}$	-25	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-1	A
Collector current (pulse)	$I_{CP}$	-2	A
Collector dissipation	$P_C$	500	mW
Jumction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{CB} = -4\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
DC current Gain	$h_{FE}$	$V_{CE} = -2\text{V}, I_C = -50\text{mA}$	100		560	
		$V_{CE} = -2\text{V}, I_C = -1\text{A}$	40			
Gain bandwidth product	$f_T$	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$		180		MHz
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.15	-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.85	-1.2	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		52		pF

## ■ hFE Classification

Marking	BB			
Rank	R	S	T	U
hFE	100~200	140~280	200~400	280~560