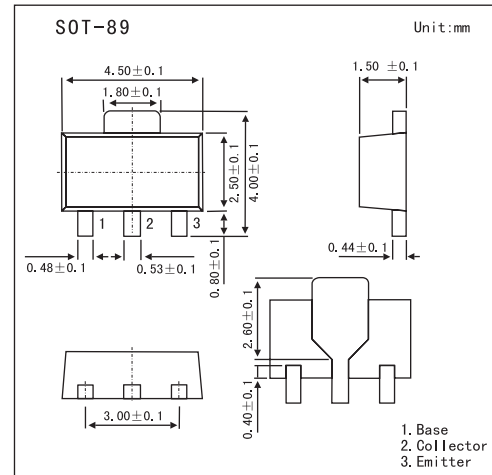


## PNP Silicon Epitaxial Transistor

### 2SB805

#### ■ Features

- High collector to emitter voltage:  $V_{CE0} > -100V$ .



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-100	V
Collector-emitter voltage	$V_{CEO}$	-100	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-0.7	A
Collector current (pulse) *1	$I_{C(pu)}$	-1.2	A
Collector power dissipation	$P_c$	2	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*1.  $PW \leq 10\text{ms}$ , duty cycle  $\leq 50\%$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -100V, I_E = 0$			-100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-100	nA
DC current gain *	hFE	$V_{CE} = -1V, I_C = -100\text{mA}$	90	200	400	
		$V_{CE} = -1V, I_C = -5.0\text{mA}$	45	200		
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.4	-0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.9	-1.5	V
Base-emitter voltage *	$V_{BE}$	$V_{CE} = -10V, I_C = -10\text{mA}$	-550	-620	-650	mV
Output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1.0\text{MHz}$		14		pF
Transition frequency	$f_T$	$V_{CE} = -10V, I_E = 10\text{mA}$		75		MHz

\*  $PW \leq 350\mu\text{s}$ , duty cycle  $\leq 2\%$

#### ■ hFE Classification

Marking	KM	KL	KK
hFE	90~180	135~270	200~400