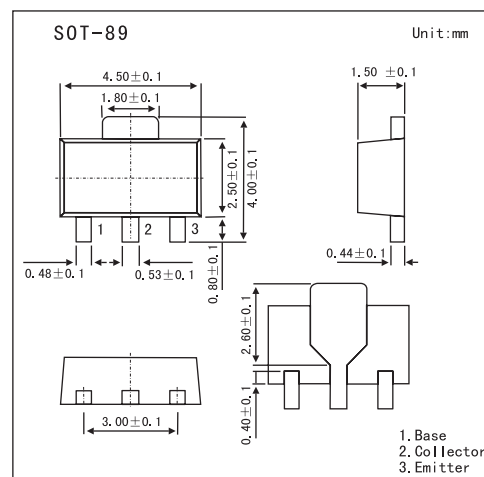


NPN Silicon Epitaxia

2SC3617

■ Features

- World standard miniature package.
- High h_{FE} $h_{FE}=800$ to 1600.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EB0}	15	V
Collector current	I_C	300	mA
Collector current (Pulse)*	I_{CP}	500	mA
Total power dissipation	P_T	2.0	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 $\leq 50\%$.

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CB0}	$V_{CB} = 50\text{V}$, $I_E = 0$			100	nA
Emitter cutoff current	I_{EB0}	$V_{EB} = 10\text{V}$, $I_C = 0$			100	nA
DC current gain *	h_{FE}	$V_{CE} = 5.0\text{V}$, $I_C = 100\text{mA}$	800		3200	
		$V_{CE} = 5.0\text{V}$, $I_C = 300\text{mA}$	640			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 100\text{mA}$, $I_B = 1.0\text{mA}$		0.12	0.13	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 100\text{mA}$, $I_B = 1.0\text{mA}$		0.7	1.2	V
Gain bandwidth product	f_T	$V_{CE} = 5.0\text{V}$, $I_E = -50\text{mA}$	150	220		MHz
Output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1.0\text{MHz}$		8.0		pF

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

■ h_{FE} Classification

Marking	TM	TL	TK
h_{FE}	800~1600	1200~2400	2000~3200