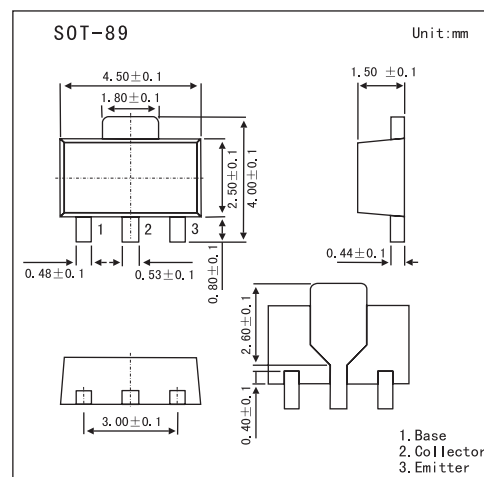


NPN Silicon Epitaxia

2SC3618

■ Features

- World standard miniature package.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	25	V
Collector-emitter voltage	V_{CE0}	25	V
Emitter-base voltage	V_{EB0}	15	V
Collector current	I_C	0.7	A
Collector current (Pulse)*	I_{CP}	1.0	A
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_{CBO}	$V_{CB} = 25\text{V}$, $I_E = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 10\text{V}$, $I_C = 0$			100	nA
DC current gain *	h_{FE}	$V_{CE} = 2.0\text{V}$, $I_C = 300\text{mA}$	800		3200	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 300\text{mA}$, $I_B = 3.0\text{mA}$		0.16	0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 300\text{mA}$, $I_B = 3.0\text{mA}$		0.75	1.2	V
Gain bandwidth product	f_T	$V_{CE} = 5.0\text{V}$, $I_E = -300\text{mA}$	150	250		MHz
Output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1.0\text{MHz}$		10		pF

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

■ h_{FE} Classification

Marking	UM	UL	UK
h_{FE}	800~1600	1200~2400	2000~3200