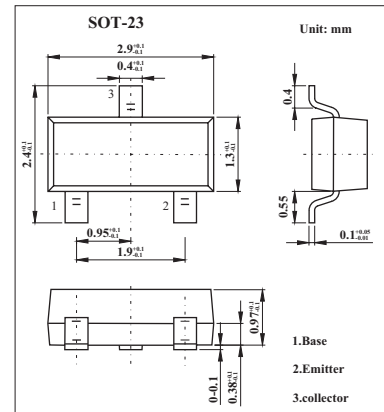


NPN Silicon Epitaxial Transistor

2SC3624

■ Features

- High DC current Gain: $h_{FE} = 1000$ to 3200 .
- Low $V_{CE(sat)}$: ($V_{CE(sat)} = 0.07$ V TYP).

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	12	V
Collector current (DC)	I_C	150	mA
Total power dissipation	P_T	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 50\text{V}, I_E = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 10\text{V}, I_C = 0$			100	nA
DC current gain *	h_{FE}	$V_{CE} = 5\text{V}, I_C = 1\text{mA}$	1000	1800	3200	
Base-emitter voltage *	V_{BE}	$V_{CE} = 5\text{V}, I_C = 1\text{mA}$		0.56		V
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$		0.07	0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$		0.8	1.2	V
Gain bandwidth product	f_T	$V_{CE} = 5\text{V}, I_E = -10\text{mA}$		250		MHz
Output capacitance	C_{ob}	$V_{CB} = 5\text{V}, I_E = 0, f = 1.0\text{MHz}$		3		pF
Turn-on time	t_{on}	$V_{CC} = 10\text{V}, V_{BE(off)} = -2.7\text{V}$		0.13		ns
Storage time	t_{stg}	$I_C = 50\text{mA}$		0.72		ns
Turn-off time	t_{off}	$I_{B1} = -I_{B2} = 1\text{mA}$		1.22		ns

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

■ h_{FE} Classification

Marking	L17	L18
h_{FE}	1000~2000	1600~3200