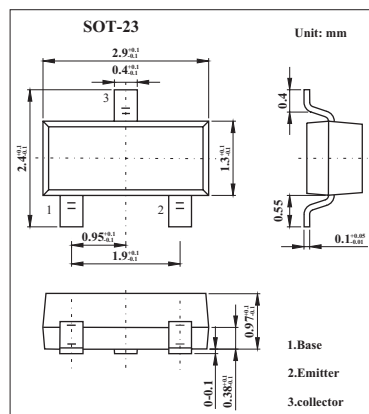


# 2SC3624

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

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

### ■ $h_{FE}$ Classification

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