

## SMD Type

## Transistors

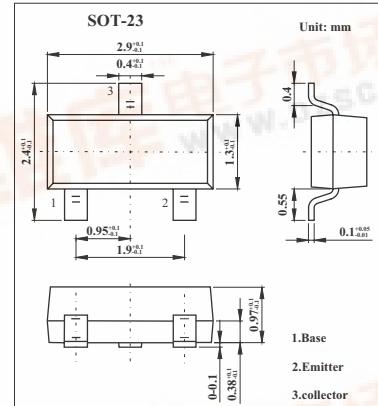
# NPN Transistor

## 2SC3052



### ■ Features

- Collector current : $I_C=0.2A$
- Power dissipation : $P_c=0.15W$



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	50	V
Collector-emitter voltage	$V_{CEO}$	50	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	200	mA
power dissipation *	$P_c$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

\* . 0.7 mmx16 cm<sup>2</sup> ceramic substrate

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = 100 \mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=100 \mu A, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=100 \mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=1mA$	150		800	
		$V_{CE}=6V, I_C=0.1mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B= 10mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C= 100mA, I_B= 10mA$			1	V
Collector output capacitance	$C_{ob}$	$V_{CE}=6V, I_E=0, f=1MHz$			4	pF
Noise figure	NF	$V_{CE}=6V, I_E=-0.1mA, f=1KHz, R_G=2K\Omega$			15	dB
Transition frequency	$f_T$	$V_{CE}= 6V, I_C= 10mA$	180			MHz

### ■ hFE Classification

Marking	LE	LF	LG
Rank	E	F	G
hFE	150 to 300	250 to 500	400 to 800

