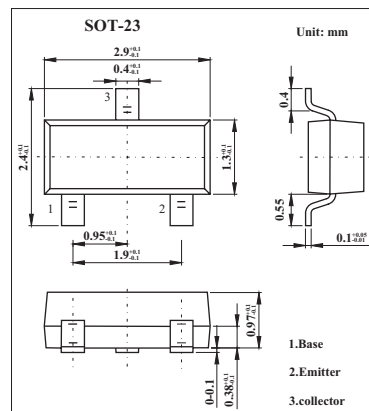


NPN Transistor

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_{CB0}	50	V
Collector-emitter voltage	V_{CE0}	50	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_C	200	mA
power dissipation *	P_C	150	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

*. $0.7\text{ mm} \times 16\text{ cm}^2$ ceramic substrate

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_C = 100\text{ }\mu\text{ A}, I_E = 0$	50			V
Collector-emitter breakdown voltage	V_{CE0}	$I_C = 100\text{ }\mu\text{ A}, I_B = 0$	50			V
Emitter-base breakdown voltage	V_{EB0}	$I_E = 100\text{ }\mu\text{ A}, I_C = 0$	6			V
Collector cut-off current	I_{CB0}	$V_{CB} = 50V, I_E = 0$			0.1	$\mu\text{ A}$
Emitter cut-off current	I_{EB0}	$V_{EB} = 6V, I_C = 0$			0.1	$\mu\text{ A}$
DC current gain	h_{FE}	$V_{CE} = 6V, I_C = 1\text{ mA}$	150		800	
		$V_{CE} = 6V, I_C = 0.1\text{ mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{ mA}, I_B = 10\text{ mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100\text{ mA}, I_B = 10\text{ mA}$			1	V
Collector output capacitance	C_{ob}	$V_{CE} = 6V, I_E = 0, f = 1\text{ MHz}$			4	pF
Noise figure	NF	$V_{CE} = 6V, I_E = -0.1\text{ mA}, f = 1\text{ KHz}, R_G = 2\text{ K }\Omega$			15	dB
Transition frequency	f_T	$V_{CE} = 6V, I_C = 10\text{ mA}$	180			MHz

■ h_{FE} Classification

Marking	LE	LF	LG
Rank	E	F	G
h_{FE}	150 to 300	250 to 500	400 to 800