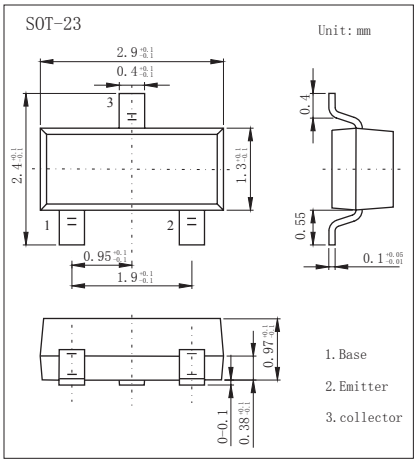
NPN Transistors

2SC3052



■ Features

- Collector Current Capability I_C=100mA
- Collector Emitter Voltage V_{CEO}=50V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	100	mA
Collector Current - Pulse	I_{CP}	200	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	50			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1mA, I_B= 0	50			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	6			
Collector-base cut-off current	I_{CBO}	V_{CB}= 50 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}=6V , I_C=0			0.1	
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	
DC current gain	h_{FE}	V_{CE}=6V, I_C=1mA	150		800	
		V_{CE}=6V, I_C=0.1mA	50			
Noise figure	NF	V_{CE}= 6V,I_E=-0.1mA,f=1KHz,RG=2KΩ			15	dB
Collector output capacitance	C_{ob}	V_{CB}= 6V, I_E=0,f=1MHz			4	pF
Transition frequency	f_T	V_{CE}= 6V, I_C=10mA	180			MHz

■ Classification of $h_{fe(1)}$

Type	2SC3052-E	2SC3052-F	2SC3052-G
Range	150-300	250-500	400-800
Marking	LE	LF	LG