

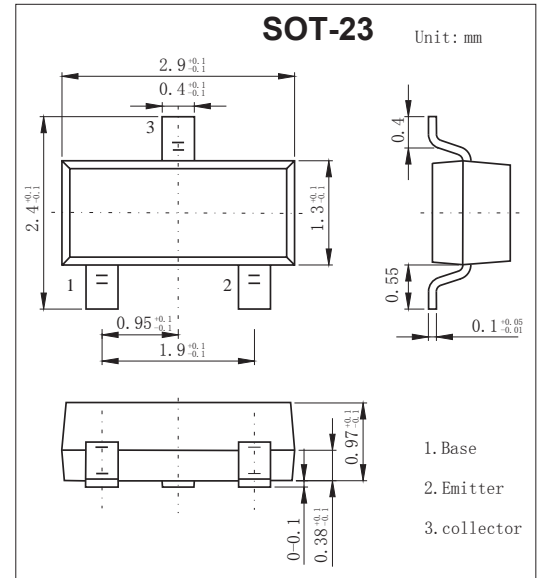
SOT-23 Plastic-Encapsulate Transistors

Features

- Collector Current Capability $I_c=100\text{mA}$
- Collector Emitter Voltage $V_{CE0}=50\text{V}$

MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	50	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	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	°C
Storage Temperature Range	T_{stg}	-55 to 150	

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