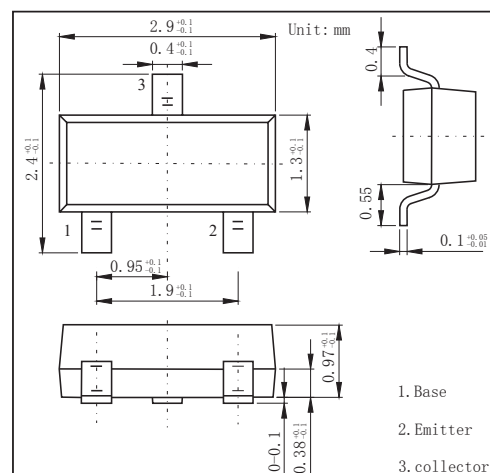


**SOT-23 Plastic-Encapsulate Transistors**
**FEATURES**

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

**MECHANICAL DATA**

- Case style:SOT-23molded 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

## RATINGS AND CHARACTERISTIC CURVES

