

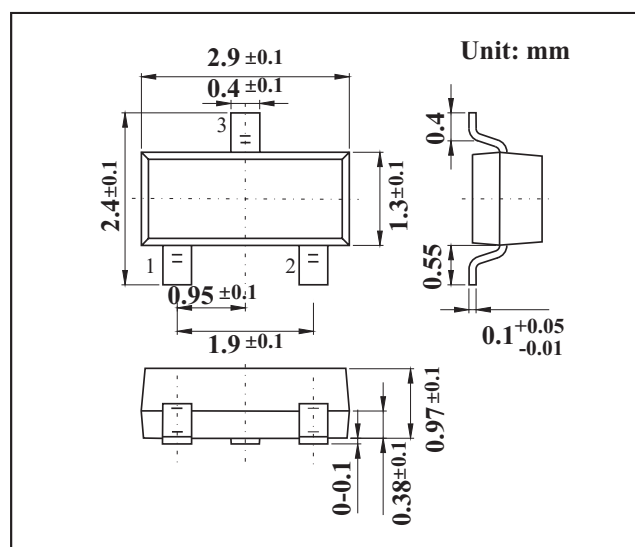
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- Collector Current Capability $I_C=50\text{mA}$
- Collector Emitter Voltage $V_{CEO}=160\text{V}$
- NPN Transistors

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_{CBO}	180	V
Collector - Emitter Voltage	V_{CEO}	160	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	-55 to 125	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	180			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	160			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 160 \text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 3 \text{ V}, I_C = 1 \text{ mA}$	70			
		$V_{CE} = 3 \text{ V}, I_C = 15 \text{ mA}$	90		400	
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2.3		pF
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_E = -10 \text{ mA}$		120		MHz

RATINGS AND CHARACTERISTIC CURVES

