

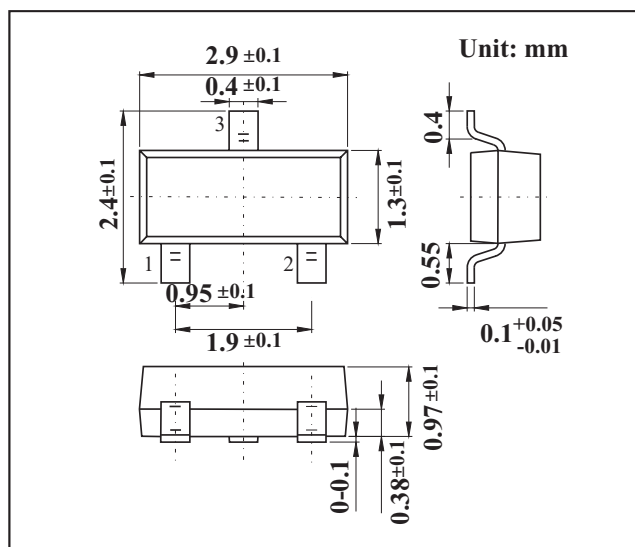
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- High DC Current Gain: $h_{FE} = 200$ TYP
 $V_{CE} = 6.0$ V, $I_C = 1.0$ mA
- High Voltage: $V_{CEO} = 50$ V
- NPN Transistors

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 to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	5	V
Collector current (DC)	I_C	100	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55 to +150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	50			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 60 V, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$		0.15	0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$		0.86	1	
Base - emitter voltage	V_{BE}	$V_{CE} = 6 V, I_C = 1 mA$	0.55		0.7	
DC current gain	h_{FE}	$V_{CE} = 6 V, I_C = 1 mA$	90	200	600	
Collector output capacitance	C_{ob}	$V_{CB} = 6 V, I_E = 0, f = 1 MHz$		3		pF
Transition frequency	f_T	$V_{CE} = 6 V, I_E = -10 mA$		250		MHz

RATINGS AND CHARACTERISTIC CURVES

