

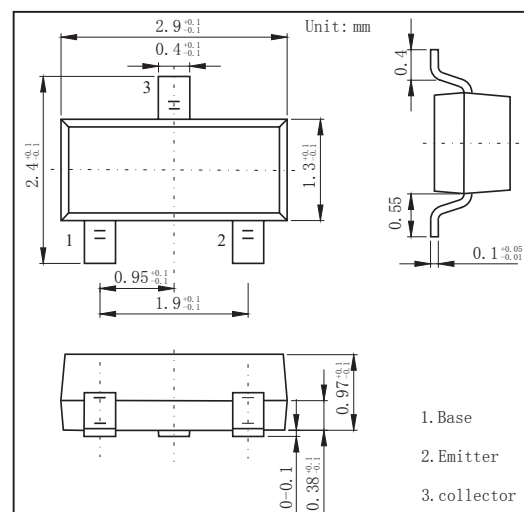
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- High h_{FE}
- Low $V_{CE(sat)}$
- For general amplification
- 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 - Base Voltage	VCBO	60	V
Collector - Emitter Voltage	VCEO	50	
Emitter - Base Voltage	VEBO	7	
Collector Current - Continuous	IC	100	mA
Collector Power Dissipation	PC	200	mW
Thermal Resistance from Junction to Ambient	ROJA	625	°C/W
Junction Temperature	TJ	150	°C
Storage Temperature Range	Tstg	-55 to +150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	VCBO	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	VCEO	$I_C = 2 mA, I_B = 0$	50			
Emitter - base breakdown voltage	VEBO	$I_E = 100 \mu A, I_C = 0$	7			
Collector-base cut-off current	ICBO	$V_{CB} = 50 V, I_E = 0$			0.1	μA
Collector-emitter cut-off current	ICEO	$V_{CE} = 30 V, I_B = 0$			100	
Emitter cut-off current	IEBO	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 2 V, I_C = 100 mA$	90			
	$h_{FE(2)}$	$V_{CE} = 10 V, I_C = 2 mA$	160		460	
Collector output capacitance	Cob	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$		3.5		pF
Transition frequency	fr	$V_{CE} = 10 V, I_C = 2 mA, f = 200 MHz$		150		MHz