

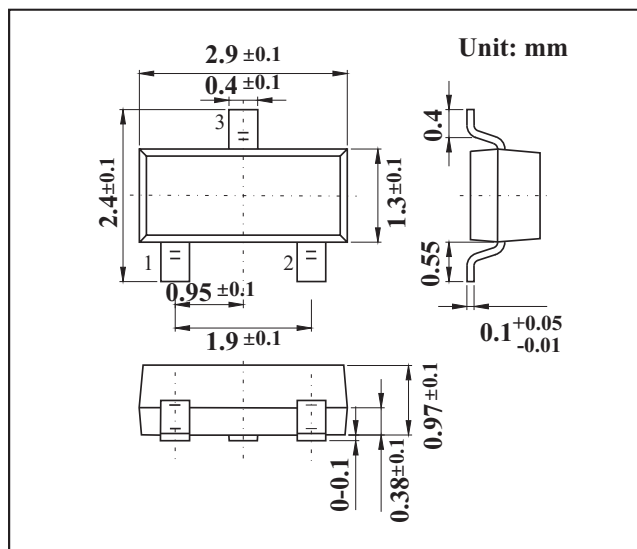
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- Collector current up to 150mA
- High hFE linearity
- 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	150	mA
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	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cutoff current	I_{CBO}	$V_{CB}=60V, I_E=0$			0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=5.0V, I_C=0$			0.1	μA
DC current gain	hFE	$V_{CE}=6.0V, I_C=1.0mA$	130		400	
		$V_{CE}=6.0V, I_C=0.1mA$	40			
Collector saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$			0.3	V
Base saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$			1.0	V
Collector to base capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			3.0	pF
Noise figure	NF	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$		4		
Transition frequency	f_T	$V_{CE}=6V, I_C=10mA, f=30MHz$	150			MHz

RATINGS AND CHARACTERISTIC CURVES

