

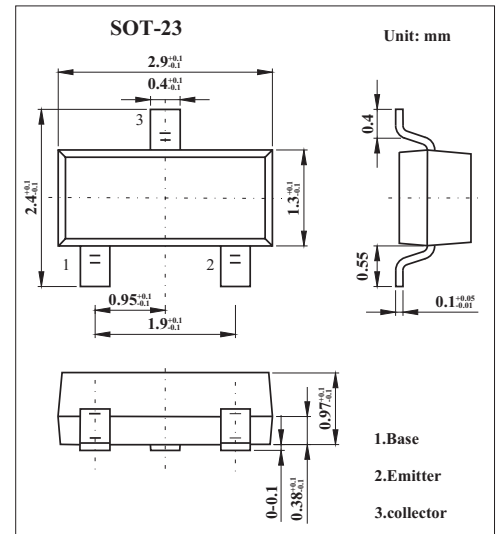
SOT-23 Plastic-Encapsulate Transistors

Features

- Collector Current to Continuous : $I_C = -600\text{mA}$
- Power Dissipation : $P_D = 250\text{mW}$
- PNP General Purpose Amplifier

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	V_{CB0}	-60	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-600	mA
Total Device Dissipation	P_D	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	°C

Parameter	Symbol	Test conditons	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10 \mu A, I_E = 0$	-60		V
Collector-Emitter Breakdown Voltage*	$V_{(BR)CEO}$	$I_C = -10 \text{ mA}, I_B = 0$	-40		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10 \mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$		-100	nA
Emitter cut-off current	I_{EBO}	$V_{CE} = -3V, I_C = 0$		-100	nA
DC Current Gain	h_{FE}	$I_C = -0.1 \text{ mA}, V_{CE} = -10 \text{ V}$	35		
		$I_C = -1.0 \text{ mA}, V_{CE} = -10 \text{ V}$	50		
		$I_C = -10 \text{ mA}, V_{CE} = -10 \text{ V}$	75		
		$I_C = -150 \text{ mA}, V_{CE} = -10 \text{ V}$	100	300	
		$I_C = -500 \text{ mA}, V_{CE} = -10 \text{ V}$	30		
Collector-Emitter Saturation Voltage*	$V_{CE(sat)}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$		-0.4	V
		$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$		-1.3	V
		$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		-2.6	V
Current Gain - Bandwidth Product	f_T	$I_C = -50 \text{ mA}, V_{CE} = -20 \text{ V}, f = 100 \text{ MHz}$	200		MHz
Output Capacitance	C_{ob0}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 100 \text{ kHz}$		8.0	pF
Input Capacitance	C_{ibo}	$V_{EB} = -2.0 \text{ V}, I_C = 0, f = 100 \text{ kHz}$		30	pF
Turn-on Time	t_{on}			45	ns
Delay Time	t_d	$V_{CC} = -30 \text{ V}, I_C = -150 \text{ mA}, I_{B1} = -15 \text{ mA}$		10	ns
Rise Time	t_r			40	ns
Turn-off Time	t_{off}			100	ns
Storage Time	t_s	$V_{CC} = -6.0 \text{ V}, I_C = -150 \text{ mA}, I_{B1} = I_{B2} = -15 \text{ mA}$		80	ns
Fall Time	t_f			30	ns

Marking

Marking	M2B
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