

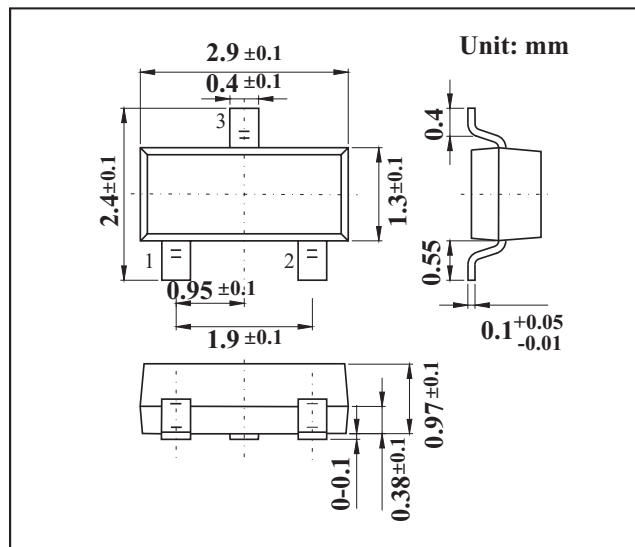
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- Collector Current Capability $I_C=200\text{mA}$
- Collector Emitter Voltage $V_{CEO}=15\text{V}$
- TRANSNPN Transistors

MECHANICAL DATA

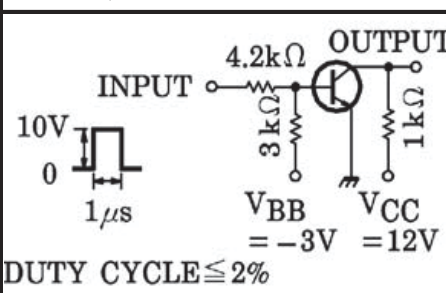
- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	40	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current	I_C	200	mA
Base Current	I_B	40	
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}	$I_C = 100 \mu\text{A}$, $I_E = 0$	40			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}$, $I_B = 0$	15			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 40\text{V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20 \text{ mA}$, $I_B = 1 \text{ mA}$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20 \text{ mA}$, $I_B = 1 \text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 1\text{V}$, $I_C = 10 \text{ mA}$	40		240	
		$V_{CE} = 1\text{V}$, $I_C = 100 \text{ mA}$	20			
Turn-on time	t_{on}			70		ns
Storage time	t_{stg}			15		
Fall time	t_f			30		
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1 \text{ MHz}$			6	pF
Transition frequency	f_T	$V_{CE} = 10\text{V}$, $I_C = 10 \text{ mA}$	200			MHz

RATINGS AND CHARACTERISTIC CURVES

