

NPN Transistors

PZT4401 (KZT4401)

■ Features

- Low Voltage and Low Current
- Linear Amplifier and Switch Applications
- Complementary to PZT4403

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

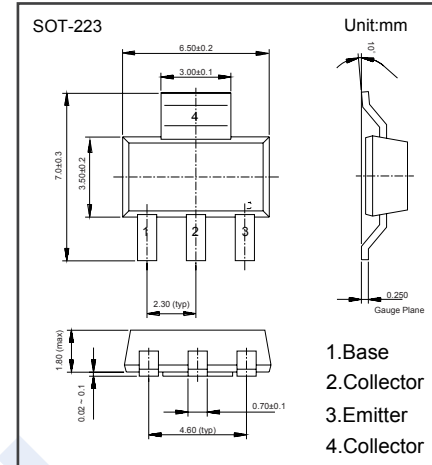
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	60	V
Collector - Emitter Voltage	V_{CE0}	40	
Emitter - Base Voltage	V_{EB0}	6	
Collector Current - Continuous	I_C	600	mA
Collector Power Dissipation	P_C	1	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	125	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu\text{A}$, $I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}$, $I_B = 0$	40			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_C = 0$	6			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 60 \text{ V}$, $I_E = 0$			100	nA
Emitter cut-off current	I_{EB0}	$V_{EB} = 6 \text{ V}$, $I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 150 \text{ mA}$, $I_B = 15 \text{ mA}$			0.4	V
		$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			0.75	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 150 \text{ mA}$, $I_B = 15 \text{ mA}$			0.95	
		$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 \text{ V}$, $I_C = 0.1 \text{ mA}$	20			
	$h_{FE(2)}$	$V_{CE} = 1 \text{ V}$, $I_C = 1 \text{ mA}$	40			
	$h_{FE(3)}$	$V_{CE} = 1 \text{ V}$, $I_C = 10 \text{ mA}$	80			
	$h_{FE(4)}$	$V_{CE} = 1 \text{ V}$, $I_C = 150 \text{ mA}$	100	300		
Emitter input capacitance	C_{ib}	$V_{EB} = 0.5 \text{ V}$, $I_C = 0$, $f = 1 \text{ MHz}$			30	pF
Collector output capacitance	C_{ob}	$V_{CB} = 5 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$			8	
Transition frequency	f_T	$V_{CE} = 10 \text{ V}$, $I_C = 20 \text{ mA}$, $f = 100 \text{ MHz}$	250			MHz

■ Marking

Marking	ZT4401
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■ Typical Characteristics

