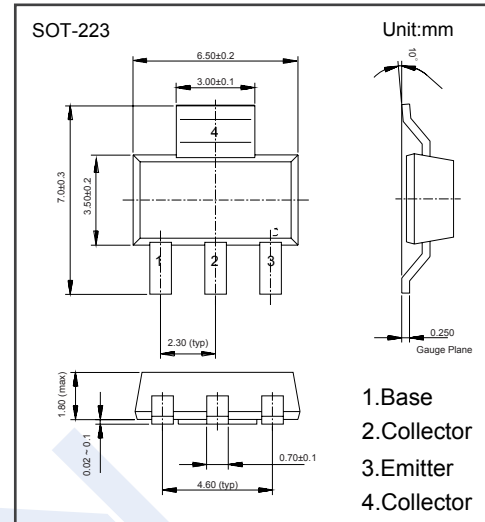


NPN Transistors

CZT122 (KZT122)

■ Features

- Silicon Power Darlington Transistors
- Low speed switching and amplifier applications
- Complementary to CZT127

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	100	V
Collector - Emitter Voltage	V_{CE0}	100	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	5	A
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 1\text{mA}, I_E = 0$	100			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 30\text{mA}, I_B = 0$	100			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 1\text{mA}, I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 100\text{V}, I_E = 0$			200	μA
Collector- emitter cut-off current	I_{CE0}	$V_{CE} = 50\text{V}, I_E = 0$			500	
Emitter cut-off current	I_{EB0}	$V_{EB} = 5\text{V}, I_C = 0$			2	mA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3\text{A}, I_B = 12\text{mA}$			2	V
		$I_C = 5\text{A}, I_B = 20\text{mA}$			4	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 5\text{A}, I_B = 20\text{mA}$			1.2	
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = 3\text{V}, I_C = 3\text{A}$			2.5	
DC current gain	$h_{FE(1)}$	$V_{CE} = 3\text{V}, I_C = 500\text{mA}$	1000			
	$h_{FE(2)}$	$V_{CE} = 3\text{V}, I_C = 3\text{A}$	1000			
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$			200	pF
Transition frequency	f_T	$V_{CE} = 4\text{V}, I_C = 3\text{A}, f = 1\text{MHz}$	4			MHz