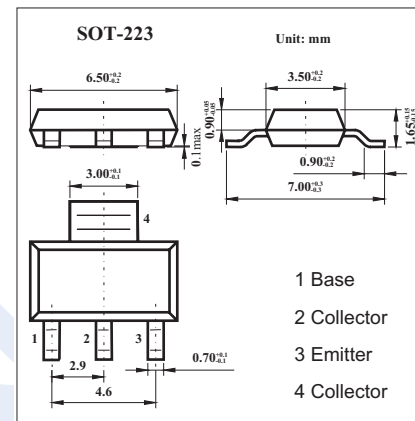


## Surface Mount NPN Silicon Power Darlington Transistor KZT122 (CZT122)

### ■ Features

- High current (max. 5A).
- Low voltage (max. 100V).



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	100	V
Collector-emitter voltage	V <sub>CEO</sub>	100	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	5	A
	I <sub>CP</sub>	8	A
Base current	I <sub>B</sub>	120	mA
power dissipation	P <sub>d</sub>	2	W
Thermal Resistance Junction-to-Ambient	R <sub>θJA</sub>	62.5	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =30mA	100			V
Collector cutoff current	I <sub>CEO</sub>	V <sub>CE</sub> =50V			500	μA
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 100 V			200	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 5.0 V			2.0	mA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = 500 mA; V <sub>CE</sub> = 3.0 V	1000			
		I <sub>C</sub> = 3A; V <sub>CE</sub> = 3.0V	1000			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 3.0A; I <sub>B</sub> = 12mA			2.0	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 5.0A; I <sub>B</sub> = 20mA			4.0	V
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1.0MHz			200	pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = 3A; V <sub>CE</sub> = 4V; f = 1.0 MHz	4.0			MHz