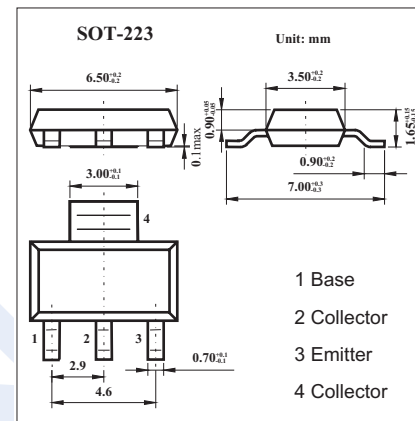


Surface Mount NPN Silicon Power Darlington Transistor KZT122 (CZT122)

■ Features

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



■ 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	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	5	A
	I_{CP}	8	A
Base current	I_B	120	mA
power dissipation	P_D	2	W
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	62.5	$^\circ\text{C}/\text{W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to emitter breakdown voltage	V_{CE0}	$I_C=30\text{mA}$	100			V
Collector cutoff current	I_{CE0}	$V_{CE}=50\text{V}$			500	μA
Collector cutoff current	I_{CBO}	$V_{CB} = 100\text{V}$			200	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5.0\text{V}$			2.0	mA
DC current gain	h_{FE}	$I_C = 500\text{mA}; V_{CE} = 3.0\text{V}$	1000			
		$I_C = 3\text{A}; V_{CE} = 3.0\text{V}$	1000			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3.0\text{A}; I_B = 12\text{mA}$			2.0	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 5.0\text{A}; I_B = 20\text{mA}$			4.0	V
Output capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1.0\text{MHz}$			200	pF
Transition frequency	f_T	$I_C = 3\text{A}; V_{CE} = 4\text{V}; f = 1.0\text{MHz}$	4.0			MHz