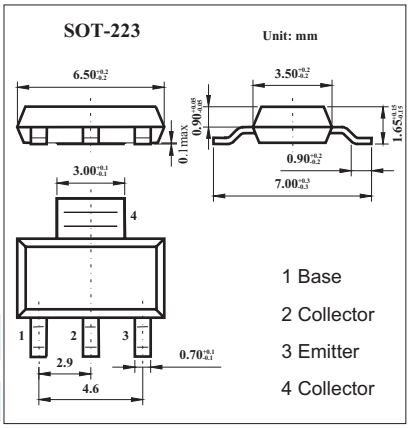
Surface Mount NPN Silicon Power Darlington Transistor

KZT122 (CZT122)



Features

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

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	100	V
Collector-emitter voltage	V_{CEO}	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	℃/W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

Electrical Characteristics Ta = 25℃

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