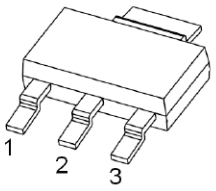
SOT-223 Plastic-Encapsulate Transistors

CZT122 TRANSISTOR (NPN)

SOT-223



1. BASE
2. COLLECTOR
3. EMITTER

FEATURES

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

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	5	A
P_C	Collector Power Dissipation	1	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1m A,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=30mA,I_B=0	100			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			200	uA
Base cut-off current	I_{CEO}	V_{CE}=50V,I_B=0			500	uA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			2	mA
DC current gain	$h_{FE(1)}$	V_{CE}=3V,I_C=0.5A	1000			
	$h_{FE(2)}$	V_{CE}=3V,I_C=3A	1000			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=3A,I_B=12mA			2	V
	$V_{CE(sat)2}$	I_C=5A,I_B=20mA			4	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}=3V,I_C=3A			2.5	V
Transition frequency	f_T	V_{CE}=4V,I_C=3A,f=1MHz	4			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz			200	pF