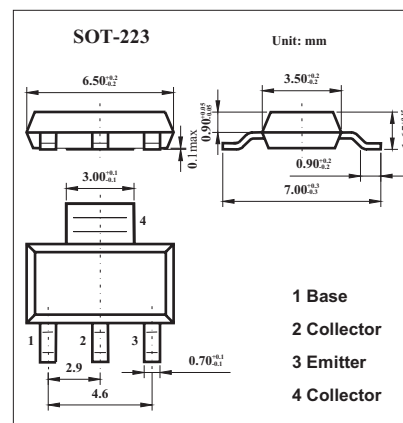


NPN Silicon Extremely High Voltage Transistor

CZTA44

■ Features

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	450	V
Collector-Emitter Voltage	V_{CE0}	400	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	300	mA
Power Dissipation	P_D	2	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to 150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	62.5	$^\circ\text{C/W}$

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

Symbol	Testconditions	Min	Max	Unit
I_{CBO}	$V_{CB}=400\text{V}$		100	nA
I_{CES}	$V_{CE}=400\text{V}$		500	nA
I_{EBO}	$V_{BE}=4.0\text{V}$		100	nA
BV_{CB0}	$I_C=100\mu\text{A}$	450		V
BV_{CES}	$I_C=100\mu\text{A}$	450		V
BV_{CE0}	$I_C=1.0\text{mA}$	400		V
BV_{EBO}	$I_E=10\mu\text{A}$	6.0		V
$V_{CE(SAT)}$	$I_C=1.0\text{mA}, I_B=0.1\text{mA}$		0.40	V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.50	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.75	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.75	V
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	40		
	$V_{CE}=10\text{V}, I_C=10\text{mA}$	50	200	
	$V_{CE}=10\text{V}, I_C=50\text{mA}$	45		
	$V_{CE}=10\text{V}, I_C=100\text{mA}$	20		
f_r	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=10\text{MHz}$	20		MHz
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		7.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		130	pF