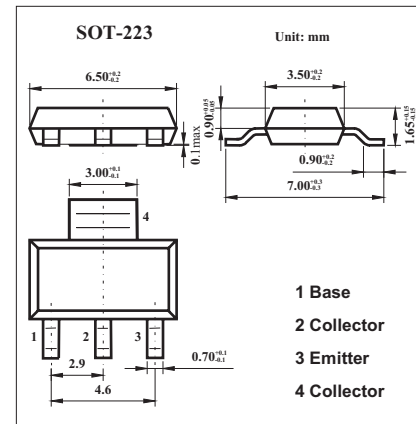


## NPN Silicon Extremely High Voltage Transistor

## 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	$\Theta_{JA}$	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
$BV_{CBO}$	$I_c=100\mu\text{A}$	450		V
$BV_{CES}$	$I_c=100\mu\text{A}$	450		V
$BV_{CEO}$	$I_c=1.0\text{mA}$	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