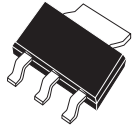


CZTA44HC

SURFACE MOUNT  
NPN SILICON HIGH CURRENT  
HIGH VOLTAGE  
TRANSISTOR



SOT-223 CASE

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZTA44HC type is a surface mount epoxy molded silicon planar epitaxial transistors designed for extremely high voltage and high current applications.

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$ )

	<b>SYMBOL</b>		<b>UNITS</b>
Collector-Base Voltage	$V_{CB0}$	450	V
Collector-Emitter Voltage	$V_{CEO}$	400	V
Emitter-Base Voltage	$V_{EBO}$	7.0	V
Collector Current	$I_C$	2.0	A
Collector Current (Peak)	$I_{CM}$	3.0	A
Power Dissipation	$P_D$	2.0	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\Theta_{JA}$	62.5	$^{\circ}\text{C/W}$

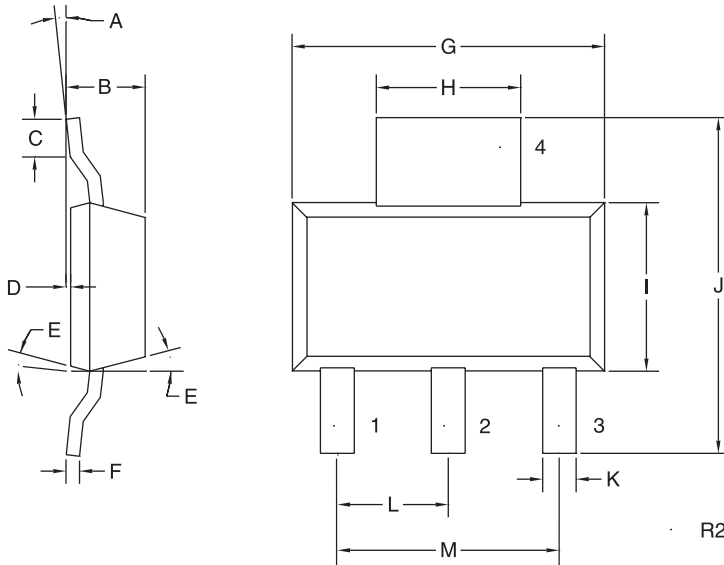
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_{CBO}$	$V_{CB}=400\text{V}$		500	nA
$I_{EBO}$	$V_{BE}=5.0\text{V}$		500	nA
$BV_{CBO}$	$I_C=50\mu\text{A}$	450		V
$BV_{CEO}$	$I_C=1.0\text{mA}$	400		V
$BV_{EBO}$	$I_E=50\mu\text{A}$	7.0		V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.25	V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		0.50	V
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=200\text{mA}$		1.5	V
$V_{BE(SAT)}$	$I_C=1.0\text{A}, I_B=1.0\text{mA}$		1.5	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	35		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=500\text{mA}$	35		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$	30		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=2.0\text{A}$	15		
$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=10\text{MHz}$	10		MHz
$C_{ob}$	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		30	pF
$C_{ib}$	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		1000	pF

R1 ( 25-June 2001)

**SURFACE MOUNT  
NPN SILICON HIGH CURRENT  
HIGH VOLTAGE  
TRANSISTOR**

**SOT-223 CASE - MECHANICAL OUTLINE**



LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- 4) COLLECTOR

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	7°	0°	7°
B	0.063	0.067	1.60	1.70
C	0.022		0.55	
D	0.001	0.004	0.03	0.10
E	15°		15°	
F	0.009	0.013	0.23	0.33
G	0.248	0.264	6.30	6.71
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.71
J	0.264	0.287	6.71	7.29
K	0.024	0.031	0.61	0.79
L	0.091		2.31	
M	0.181		4.60	

SOT-223 (REV: R2)

R1 ( 25-June 2001)