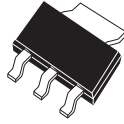


CZTUX87

**SURFACE MOUNT
HIGH VOLTAGE
NPN POWER TRANSISTOR**



SOT-223 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZTUX87 type is a NPN Silicon Power Transistor epoxy molded in a surface mount package, designed for high voltage switching applications.

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

	SYMBOL		UNITS
Collector-Emitter Voltage	V_{CEV}	900	V
Collector-Emitter Voltage	V_{CEO}	450	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	0.5	A
Peak Collector Current	I_{CM}	1.0	A
Base Current	I_B	1.0	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	Θ_{JA}	62.5	$^\circ\text{C/W}$

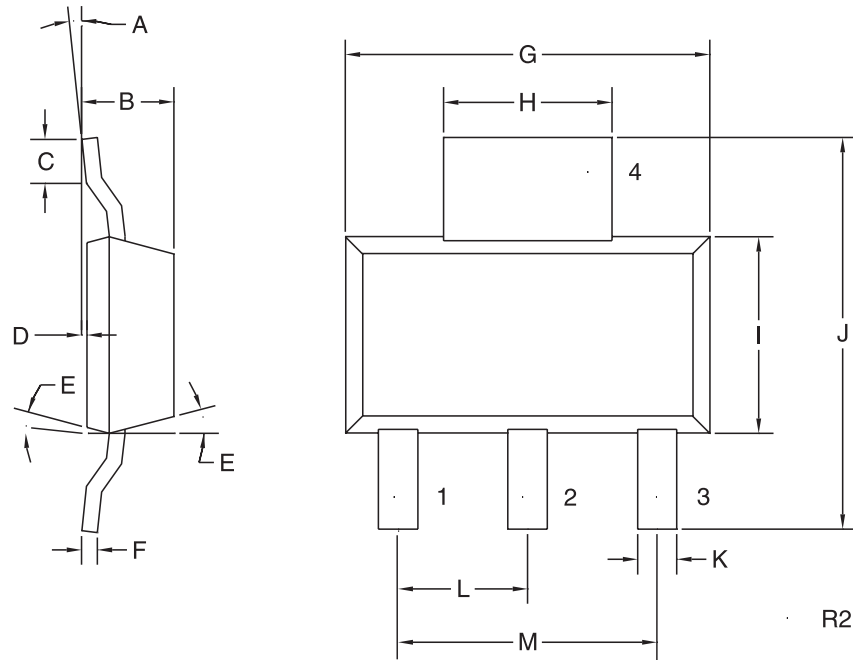
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEV}	$V_{CE}=900\text{V}, V_{BE}=1.5\text{V}$			100	μA
I_{CEV}	$V_{CE}=900\text{V}, V_{BE}=1.5\text{V}, T_A=125^\circ\text{C}$			1.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$			1.0	mA
BV_{CEO}	$I_C=30\text{mA}$	450			V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			0.8	V
$V_{CE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$			1.0	V
$V_{BE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$			1.0	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=40\text{mA}$	12			
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{MHz}$		20		MHz
t_s	$V_{CC}=250\text{V}, I_C=200\text{mA}, I_{B1}=40\text{mA}, I_{B2}=80\text{mA}$		4.5		μs
t_f	$V_{CC}=250\text{V}, I_C=200\text{mA}, I_{B1}=40\text{mA}, I_{B2}=80\text{mA}$		0.5		μs

R0 (27-August 2001)

**SURFACE MOUNT
HIGH VOLTAGE
NPN POWER TRANSISTOR**

SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

SYMBOL	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)

R0 (27-August 2001)