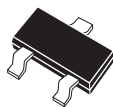


CMPTA96

SURFACE MOUNT PNP  
EXTREMELY HIGH VOLTAGE  
SILICON TRANSISTOR



SOT-23 CASE

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPTA96 type is a surface mount epoxy molded PNP silicon planar epitaxial transistors designed for extremely high voltage applications.

**MARKING CODE: C96**

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

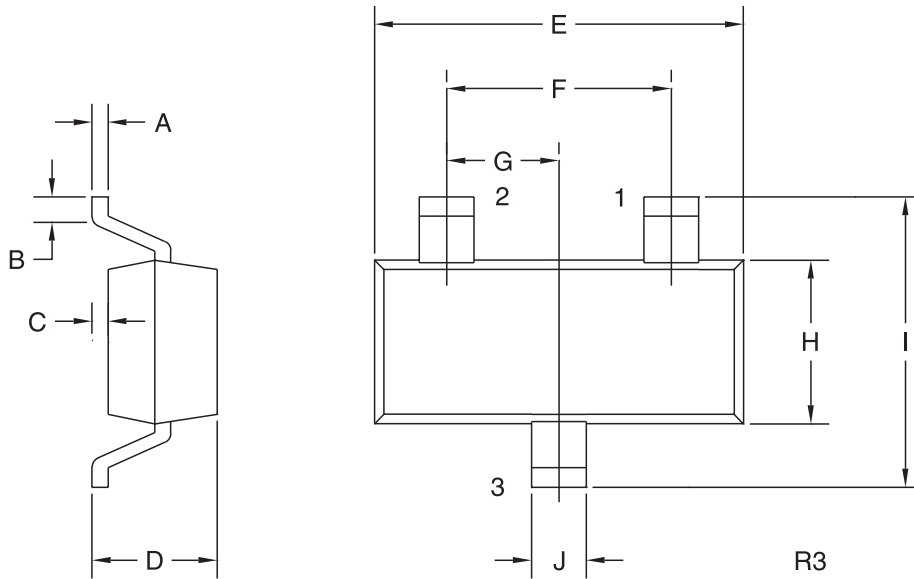
	SYMBOL		UNITS
Collector-Base Voltage	$V_{CB0}$	450	V
Collector-Emitter Voltage	$V_{CEO}$	450	V
Emitter-Base Voltage	$V_{EBO}$	6.0	V
Collector Current	$I_C$	500	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^{\circ}\text{C}/\text{W}$

**ELECTRICAL CHARACTERISTICS:**

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=400\text{V}$			100	nA
$I_{EBO}$	$V_{BE}=4.0\text{V}$			100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	450	500		V
$BV_{CEO}$	$I_C=1.0\text{mA}$	450	490		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	6.0	9.7		V
$V_{CE(SAT)}$	$I_C=1.0\text{mA}, I_B=0.1\text{mA}$			0.20	V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			0.30	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.15	0.50	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			1.0	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	40			
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	50	120	200	
$h_{FE}$	$V_{CE}=10\text{V}, I_C=50\text{mA}$	45			
$h_{FE}$	$V_{CE}=10\text{V}, I_C=100\text{mA}$	25	35		
$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=10\text{MHz}$	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

R2 (20-February 2003)

**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE: C96**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)