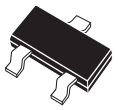
CMPTA94

SURFACE MOUNT PNP
HIGH VOLTAGE
SILICON TRANSISTOR



SOT-23 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTA94 type is a surface mount epoxy molded PNP silicon planar epitaxial transistors designed for extremely high voltage applications.

MARKING CODE: C94

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	300	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

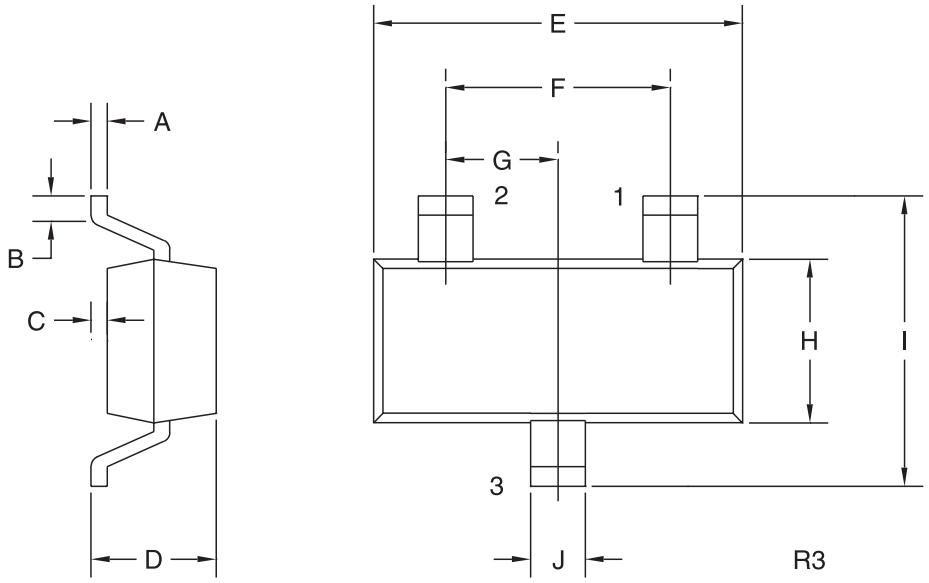
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=350V		100	nA
I_{CES}	V_{CE}=350V		500	nA
I_{EBO}	V_{BE}=4.0V		100	nA
BV_{CBO}	I_C=100μA	400		V
BV_{CES}	I_C=100μA	400		V
BV_{CEO}	I_C=1.0mA	400		V
BV_{EBO}	I_E=10μA	6.0		V
$V_{CE(SAT)}$	I_C=1.0mA, I_B=0.1mA		0.40	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.50	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		0.75	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.75	V
h_{FE}	V_{CE}=10V, I_C=1.0mA	40		
h_{FE}	V_{CE}=10V, I_C=10mA	50	200	
h_{FE}	V_{CE}=10V, I_C=50mA	45		
h_{FE}	V_{CE}=10V, I_C=100mA	20		
f_T	V_{CE}=10V, I_C=10mA, f=10MHz	20		MHz
C_{ob}	V_{CB}=20V, I_E=0, f=1.0MHz		7.0	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		130	pF

R2 (13-November 2002)

CMPTA94

SURFACE MOUNT PNP
HIGH VOLTAGE
SILICON TRANSISTOR

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) EMITTER
3) COLLECTOR

MARKING CODE: C94

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

R2 (13-November 2002)