

CMPTA42 NPN
CMPTA92 PNP

SILICON COMPLEMENTARY
HIGH VOLTAGE TRANSISTOR



CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTA42, CMPTA92 types are complementary surface mount epoxy molded silicon planar epitaxial transistors designed for high voltage applications.

MARKING CODE:

CMPTA42: C1D

CMPTA92: C2D

MAXIMUM RATINGS: (T_A=25°C)

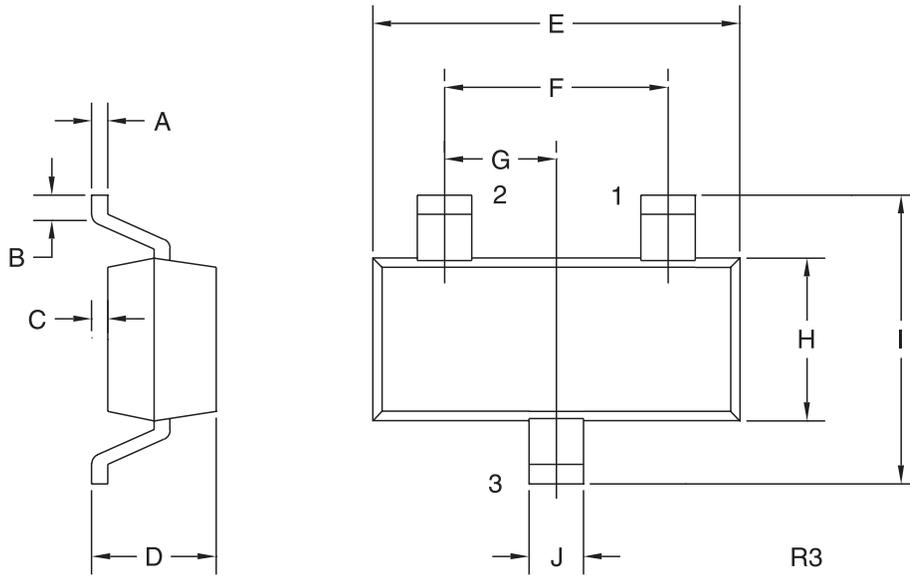
	SYMBOL	CMPTA42	CMPTA92	UNITS
Collector-Base Voltage	V _{CBO}	300	300	V
Collector-Emitter Voltage	V _{CEO}	300	300	V
Emitter-Base Voltage	V _{EBO}	6.0	5.0	V
Continuous Collector Current	I _C	500		mA
Power Dissipation	P _D	350		mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150		°C
Thermal Resistance	θ _{JA}	357		°C/W

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

SYMBOL	TEST CONDITIONS	CMPTA42		CMPTA92		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =200V		100	250		nA
I _{EBO}	V _{BE} =6.0V		100	-		nA
I _{EBO}	V _{BE} =3.0V		-	100		nA
BV _{CBO}	I _C =100μA	300		300		V
BV _{CEO}	I _C =1.0mA	300		300		V
BV _{EBO}	I _E =100μA	6.0		5.0		V
V _{CE(SAT)}	I _C =20mA, I _B =2.0mA		0.5	0.5		V
V _{BE(SAT)}	I _C =20mA, I _B =2.0mA		0.9	0.9		V
h _{FE}	V _{CE} =10V, I _C =1.0mA	25		25		
h _{FE}	V _{CE} =10V, I _C =10mA	40		40		
h _{FE}	V _{CE} =10V, I _C =30mA	40		25		
f _T	V _{CE} =20V, I _C =10mA, f=100MHz	50		50		MHz
C _{ob}	V _{CB} =20V, I _E =0, f=1.0MHz		6.0	6.0		pF

R5 (6-May 2004)

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:

CMPTA42: C1D
CMPTA92: C2D

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)