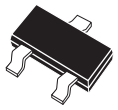
CMPTA42 NPN
CMPTA92 PNP

SILICON COMPLEMENTARY
HIGH VOLTAGE TRANSISTOR



SOT-23 CASE

Central™
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)

		CMPTA42		CMPTA92		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
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)

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CMPTA92 PNP

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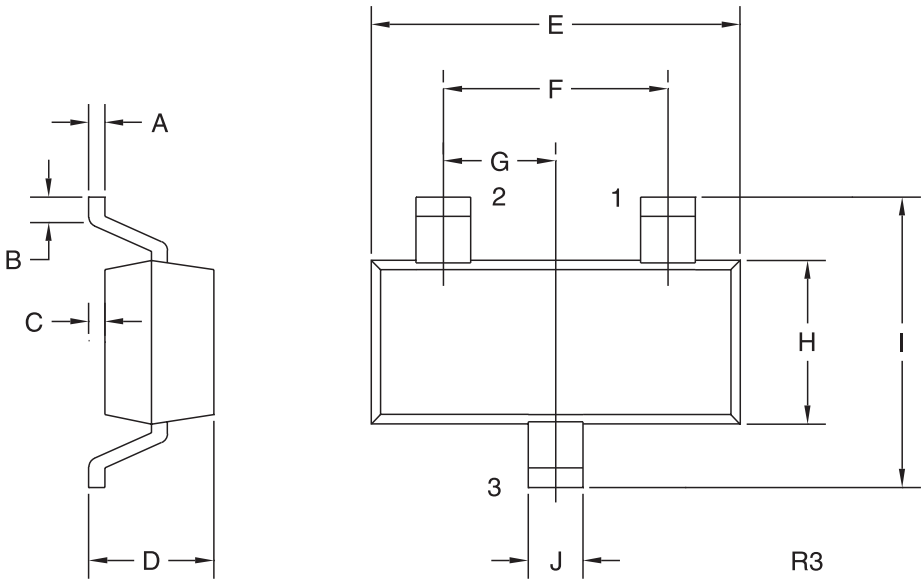
HIGH VOLTAGE TRANSISTOR

SOT-23 CASE - MECHANICAL OUTLINE



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

MARKING CODE:
CMPTA42: C1D
CMPTA92: C2D

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)

R5 (6-May 2004)