

CMPT992  
 CMPT992P  
 CMPT992F  
 CMPT992E

**SURFACE MOUNT PNP LOW NOISE  
 SILICON TRANSISTOR**



**SOT-23 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPT992 types are PNP silicon low noise transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low noise amplifier applications where a high  $BV_{CEO}$  is required.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE.**

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

	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	110	V
Collector-Emitter Voltage	$V_{CEO}$	110	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	$I_C$	50	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:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{EBO}$	$V_{EB}=5.0\text{V}$		30	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	110		V
$BV_{CEO}$	$I_C=1.0\text{mA}$	110		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.30	V
$V_{BE(ON)}$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	0.55	0.65	V
$f_T$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	50		MHz
$C_{ob}$	$V_{CB}=30\text{V}, I_E=0, f=1.0\text{MHz}$		3.0	pF
NF	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_S=10\text{k}\Omega,$ $f=10\text{Hz to } 15.7\text{KHz}$		3.0	dB

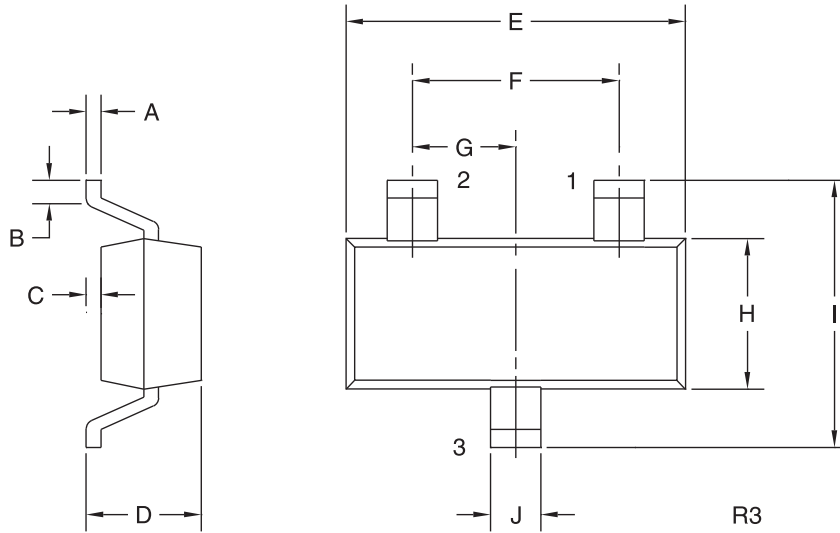
		<u>CMPT992</u>		<u>CMPT992P</u>		<u>CMPT992F</u>		<u>CMPT992E</u>	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
$h_{FE}$	$V_{CE}=6.0\text{V}, I_C=100\mu\text{A}$	150	-	150	-	150	-	150	-
$h_{FE}$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	200	800	200	400	300	600	400	800

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Base
- 2) Emitter
- 3) Collector

DEVICE	MARKING CODE
CMPT992	C992
CMPT992P	C992P
CMPT992F	C992F
CMPT992E	C992E

SYMBOL	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)

R2 (1-February 2010)