

CMPT404A

SURFACE MOUNT
PNP SILICON
CHOPPER TRANSISTOR



SOT-23 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT404A type is an PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for chopper applications.

MARKING CODE: C2N

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CBO} 40
 V_{CEO} 35
 V_{EBO} 25
 I_C 150
 P_D 350
 T_J, T_{stg} -65 to +150
 θ_{JA} 357

UNITS

V
V
V
mA
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=10\text{V}$			100	nA
I_{EBO}	$V_{EB}=10\text{V}$			100	nA
BV_{CBO}	$I_C=10\mu\text{A}$	40			V
BV_{CEO}	$I_C=10\text{mA}$	35			V
BV_{EBO}	$I_E=10\mu\text{A}$	25			V
$V_{CE(SAT)}$	$I_C=12\text{mA}, I_B=400\mu\text{A}$			0.15	V
$V_{CE(SAT)}$	$I_C=24\text{mA}, I_B=1.0\text{mA}$			0.20	V
$V_{BE(SAT)}$	$I_C=12\text{mA}, I_B=400\mu\text{A}$			0.85	V
$V_{BE(SAT)}$	$I_C=24\text{mA}, I_B=1.0\text{mA}$			1.00	V
h_{FE}	$V_{CE}=0.15\text{V}, I_C=12\text{mA}$	100		400	
C_{ob}	$V_{CB}=6.0\text{V}, I_E=0, f=1.0\text{MHz}$		40		pF
t_d	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=1.0\text{mA}$		150		ns
t_r	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=1.0\text{mA}$		400		ns
t_s	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=I_{B2}=1.0\text{mA}$		3.0		μs
t_f	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=I_{B2}=1.0\text{mA}$		750		ns

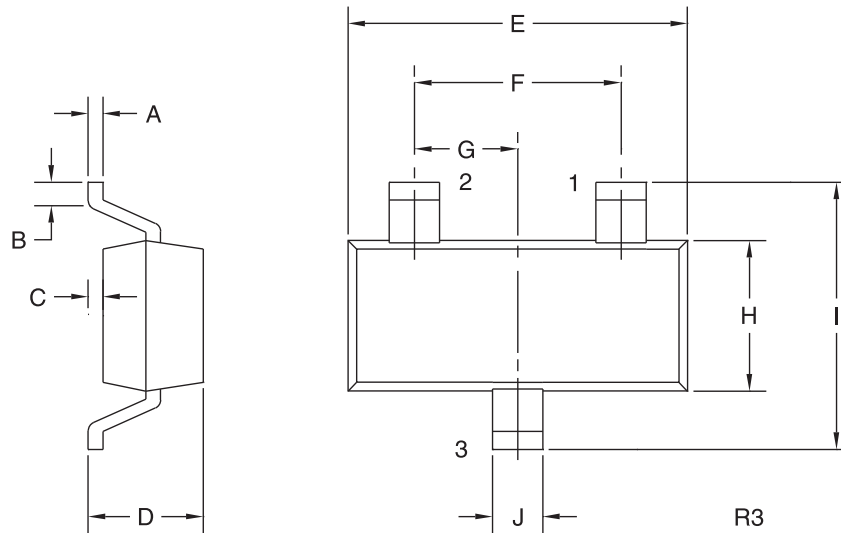
R3 (27-January 2010)

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE: C2N

DIMENSIONS				
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)

R3 (27-January 2010)