

CMPT6428
CMPT6429

**SURFACE MOUNT SILICON
NPN TRANSISTORS**



SOT-23 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT6428 and CMPT6429 are NPN silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high gain amplifier applications.

**MARKING CODES: CMPT6428: C1K
CMPT6429: C1L**

MAXIMUM RATINGS: (T_A=25°C)

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

SYMBOL	CMPT6428	CMPT6429	UNITS
V _{CB0}	60	55	V
V _{CEO}	50	45	V
V _{EBO}		6.0	V
I _C		200	mA
P _D		350	mW
T _J , T _{stg}		-65 to +150	°C
θ _{JA}		357	°C/W

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

SYMBOL	TEST CONDITIONS	CMPT6428		CMPT6429		UNITS
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =30V	-	10	-	10	nA
I _{CEO}	V _{CE} =30V	-	100	-	100	nA
I _{EBO}	V _{BE} =5.0V	-	10	-	10	nA
BV _{CB0}	I _C =100μA	60	-	55	-	V
BV _{CEO}	I _C =1.0mA	50	-	45	-	V
V _{CE(SAT)}	I _C =10mA, I _B =0.5mA	-	0.20	-	0.20	V
V _{CE(SAT)}	I _C =100mA, I _B =5.0mA	-	0.60	-	0.60	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =1.0mA	0.56	0.66	0.56	0.66	V
h _{FE}	V _{CE} =5.0V, I _C =10μA	250	-	500	-	
h _{FE}	V _{CE} =5.0V, I _C =100μA	250	650	500	1250	
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	250	-	500	-	
h _{FE}	V _{CE} =5.0V, I _C =10mA	250	-	500	-	
f _T	V _{CE} =5.0V, I _C =1.0mA, f=100MHz	100	700	100	700	MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz	-	3.0	-	3.0	pF
C _{ib}	V _{BE} =0.5V, I _C =0, f=1.0MHz	-	8.0	-	8.0	pF

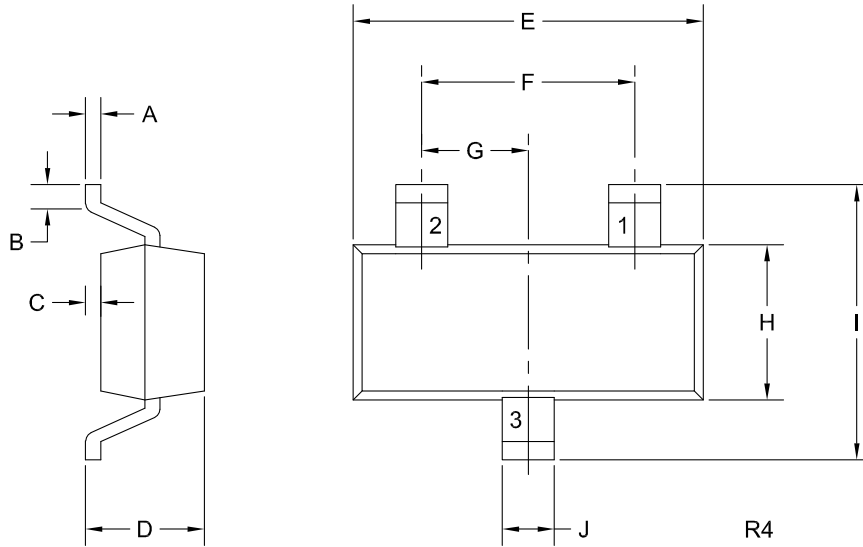
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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODES:

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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	0.044	0.89	1.12
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	0.104	2.10	2.64
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R4)

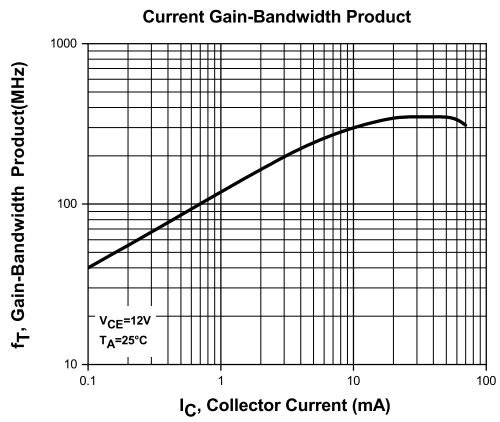
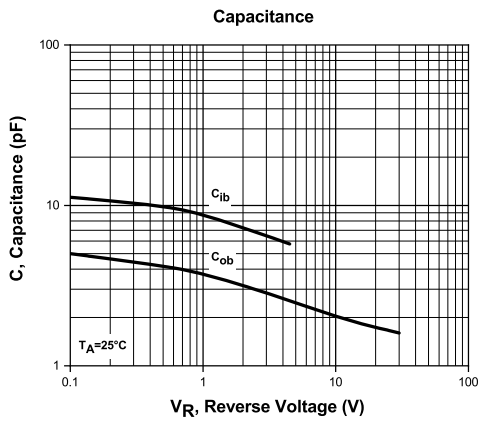
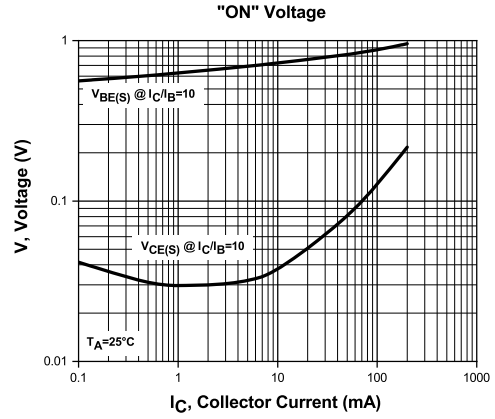
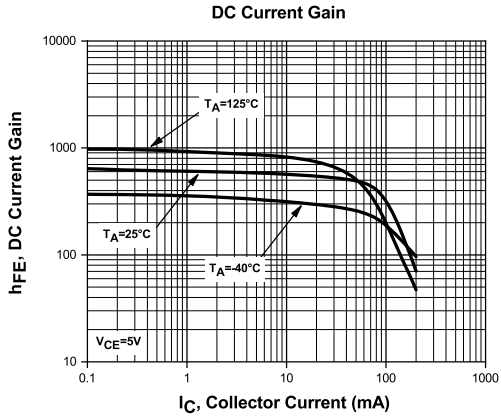
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TYPICAL ELECTRICAL CHARACTERISTICS



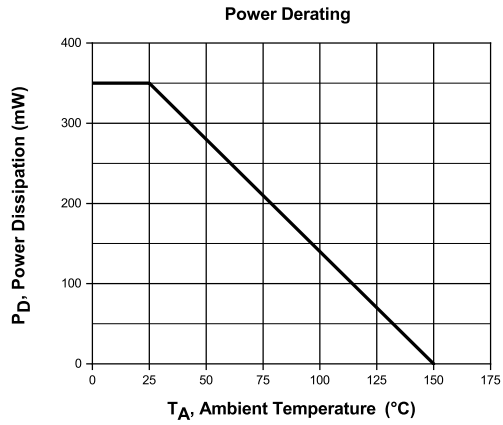
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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