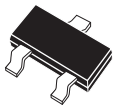
CMPT6428
CMPT6429

NPN SILICON TRANSISTOR



SOT-23 CASE

Central™
Semiconductor Corp.

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CMPT6428, CMPT6429 types 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)

	SYMBOL	CMPT6428		CMPT6429	UNITS
Collector-Base Voltage	V_{CBO}	60		55	V
Collector-Emitter Voltage	V_{CEO}	50		45	V
Emitter-Base Voltage	V_{EBO}		6.0		V
Continuous Collector Current	I_C		200		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)

		CMPT6428		CMPT6429		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=30V		10		10	nA
I_{CEO}	V_{CE}=30V		100		100	nA
I_{EBO}	V_{BE}=5.0V		10		10	nA
BV_{CBO}	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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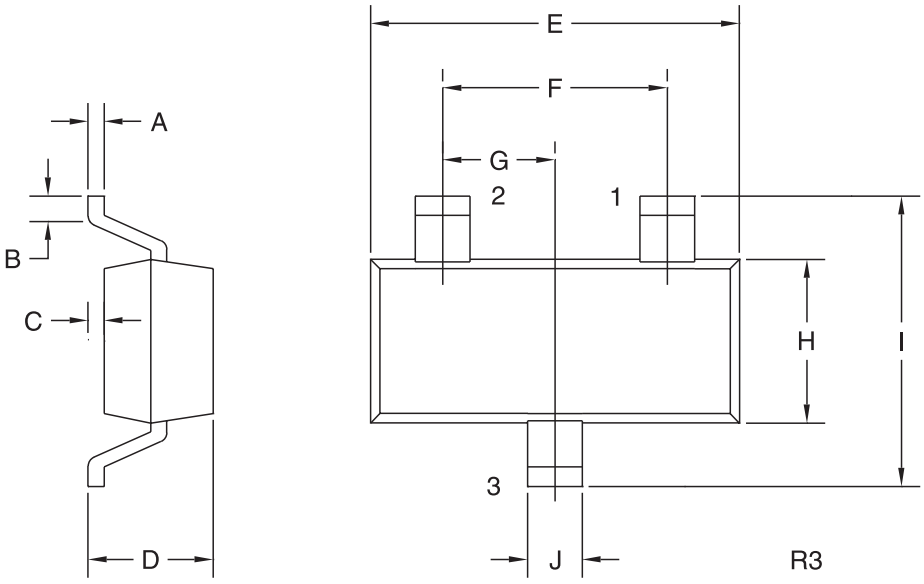
CMPT6428
CMPT6429

NPN SILICON TRANSISTOR

SOT-23 CASE - MECHANICAL OUTLINE



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

MARKING CODES:
CMPT6428: C1K
CMPT6429: C1L

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)

R4 (26-September 2002)

		CMPT5086		CMPT5087		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=10V		10		10	nA
I_{CBO}	V_{CB}=35V		50		50	nA
BV_{CBO}	I_C=100μA	50		50		V
BV_{CEO}	I_C=1.0mA	50		50		V
BV^{EBO}	I_E=100μA	3.0		3.0		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.30		0.30	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.85		0.85	V
h_{FE}	V_{CE}=5.0V, I_C=0.1mA	150	500	250	800	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	150		250		
h_{FE}	V_{CE}=5.0V, I_C=10mA	150		250		
f_T	V_{CE}=5.0V, I_C=500mA, f=20MHz	40		40		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		4.0		4.0	pF
h_{fe}	V_{CE}=5.0V, I_C=1.0mA, f=1.0kHz	150	600	250	900	
N_F	V_{CE}=5.0V, I_C=20mA, R_S=10kΩ					
	f=10Hz to 15.7kHz		3.0		2.0	dB
N_F	V_{CE}=5.0V, I_C=100mA, R_S=3.0kΩ, f=1.0kHz		3.0		2.0	dB