CMPT5088 CMPT5089

SURFACE MOUNT NPN SILICON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT5088 and CMPT5089 are NPN silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose and switching applications.

MARKING CODES: CMPT5088: C1Q

CMPT5089: C1R



MAXIMUM RATINGS: (T _A =25°C)	SYMBOL	CMPT5088	CMPT5089	UNITS
Collector-Base Voltage	V_{CBO}	35	30	V
Collector-Emitter Voltage	V_{CEO}	30	25	V
Emitter-Base Voltage	V_{EBO}	4.	V	
Continuous Collector Current	I_{C}	5	mA	
Power Dissipation	P_{D}	35	mW	
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to	+150	°C
Thermal Resistance	Θ_{JA}	35	57	°C/W

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

		CMP ⁻	CMPT5088		T5089	
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I _{CBO}	V _{CB} =20V	-	50	-	-	nA
I _{CBO}	V _{CB} =15V	-	-	-	50	nA
I _{EBO}	V _{EB} =3.0V	-	50	-	-	nA
I _{EBO}	V _{EB} =4.5V	-	-	-	100	nA
BV _{CBO}	I _C =100μA	35	-	30	-	V
BV _{CEO}	I _C =1.0mA	30	-	25	-	V
BV _{EBO}	I _E =100μA	4.5	-	4.5	-	V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA	-	0.5	-	0.5	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA	-	8.0	-	8.0	V
h _{FE}	V_{CE} =5.0V, I_{C} =0.1mA	300	900	400	1200	
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	350	-	450	-	
h _{FE}	V_{CE} =5.0V, I_{C} =10mA	300	-	400	-	
f _T	V_{CE} =5.0V, I_{C} =500 μ A, f=20MHz	50	-	50	-	MHz
C _{ob}	V_{CB} =5.0V, I_{E} =0, f=1.0MHz	-	4.0	-	4.0	pF
C _{ib}	V_{BE} =0.5V, I_{C} =0, f=1.0MHz	-	15	-	15	pF
h _{fe}	V_{CE} =5.0V, I_{C} =1.0mA, f=1.0kHz	350	1400	450	1800	
NF	V_{CE} =5.0V, I_{C} =100 μ A, R_{S} =10 $k\Omega$,					
	f=10Hz to 15.7kHz	-	3.0	-	2.0	dB

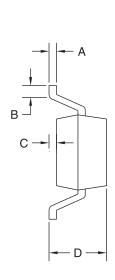
R7 (9-September 2010)

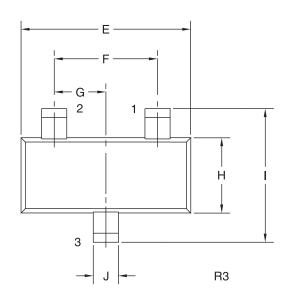
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

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

MARKING CODES: CMPT5088: C1Q CMPT5089: C1R

DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.003	0.007	0.08	0.18			
В	0.006	-	0.15	-			
С	-	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				
Н	0.047	0.055	1.19	1.40			
	0.083	0.098	2.10	2.49			
J	0.014	0.020	0.35	0.50			

SOT-23 (REV: R3)



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

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- 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).

CONTACT US

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