

CMPT8099 NPN
CMPT8599 PNP

**SURFACE MOUNT
COMPLEMENTARY
SILICON TRANSISTORS**



SOT-23 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT8099 and CMPT8599 are complementary silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for general purpose audio amplifier applications.

**MARKING CODES: CMPT8099: CKB
CMPT8599: C2W**

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage	V _{CB0}	80	80	V
Collector-Emitter Voltage	V _{CEO}	80	80	V
Emitter-Base Voltage	V _{EBO}	6.0	5.0	V
Continuous Collector Current	I _C		500	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

SYMBOL	CMPT8099	CMPT8599	UNITS
V _{CB0}	80	80	V
V _{CEO}	80	80	V
V _{EBO}	6.0	5.0	V
I _C		500	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	CMPT8099		CMPT8599		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =80V		0.1		0.1	μA
I _{EBO}	V _{BE} =6.0V		0.1		-	μA
I _{EBO}	V _{BE} =4.0V		-		0.1	μA
BV _{CB0}	I _C =100μA	80		80		V
BV _{CEO}	I _C =10mA	80		80		V
BV _{EBO}	I _E =10μA	6.0		5.0		V
V _{CE(SAT)}	I _C =100mA, I _B =5.0mA		0.4		0.4	V
V _{CE(SAT)}	I _C =100mA, I _B =10mA		0.3		0.3	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =10mA	0.6	0.8	0.6	0.8	V
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	100	300	100	300	
h _{FE}	V _{CE} =5.0V, I _C =10mA	100		100		
h _{FE}	V _{CE} =5.0V, I _C =100mA	75		75		
f _T	V _{CE} =5.0V, I _C =10mA, f=100MHz	150		150		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		6.0		4.5	pF
C _{ib}	V _{BE} =0.5V, I _C =0, f=1.0MHz		60		30	pF

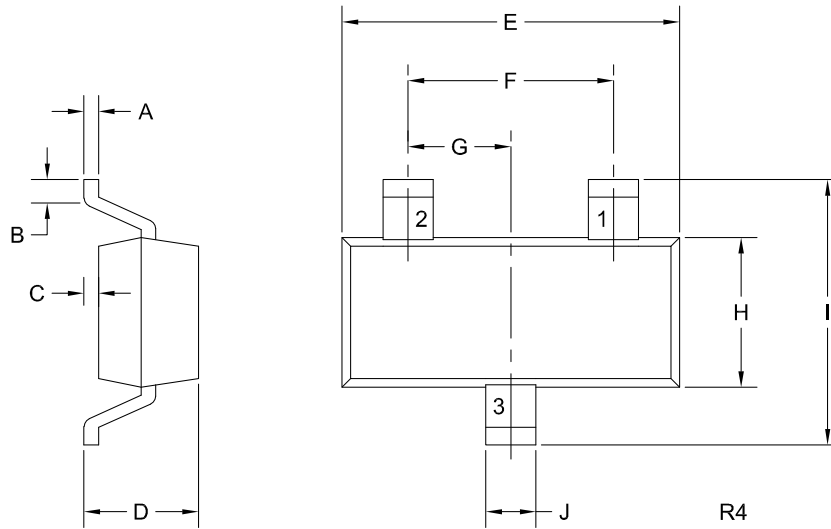
R6 (2-May 2019)

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODES:

CMPT8099: CKB
 CMPT8599: C2W

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)

R6 (2-May 2019)

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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