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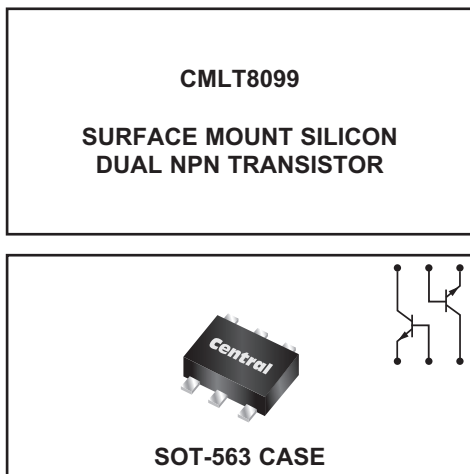
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[Central Semiconductor Corp](#)

[CMLT8099 TR](#)

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www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLT8099 consists of two individual, isolated 8099 NPN silicon transistors, manufactured by the epitaxial planar process and epoxy molded in an SOT-563 surface mount package. This device has been designed for small signal general purpose amplifier applications.

**MARKING CODE: C89**

**FEATURES:**

- Device is **Halogen Free** by design
- Current  $I_C=500mA$
- Voltage  $V_{CEO}=80V$

**APPLICATIONS:**

- Small signal general purpose amplifiers

**MAXIMUM RATINGS:** ( $T_A=25^\circ C$ )

Collector-Base Voltage	$V_{CBO}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	6.0	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	$^\circ C$
Thermal Resistance	$\theta_{JA}$	357	$^\circ C/W$

SYMBOL		UNITS
$V_{CBO}$	80	V
$V_{CEO}$	80	V
$V_{EBO}$	6.0	V
$I_C$	500	mA
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +150	$^\circ C$
$\theta_{JA}$	357	$^\circ C/W$

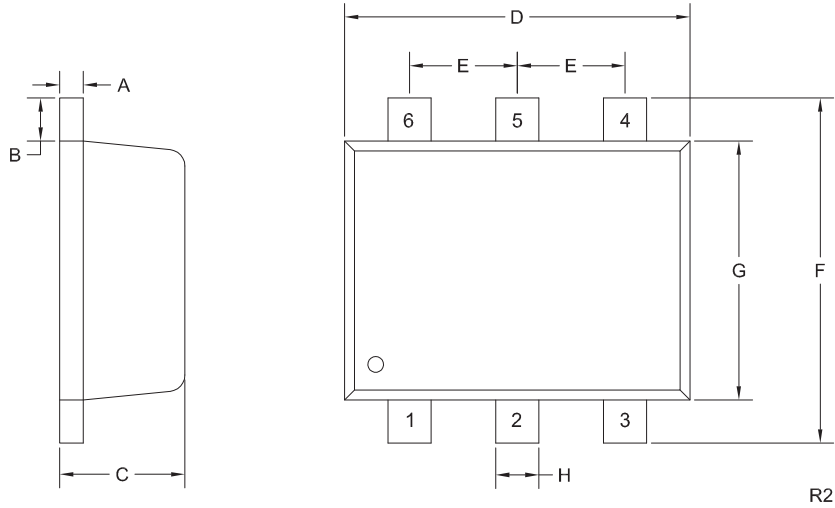
**ELECTRICAL CHARACTERISTICS PER TRANSISTOR:** ( $T_A=25^\circ C$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=80V$		0.1	$\mu A$
$I_{EBO}$	$V_{BE}=6.0V$		0.1	$\mu A$
$BV_{CBO}$	$I_C=100\mu A$	80		V
$BV_{CEO}$	$I_C=10mA$	80		V
$BV_{EBO}$	$I_E=10\mu A$	6.0		V
$V_{CE(SAT)}$	$I_C=100mA, I_B=5.0mA$		0.4	V
$V_{CE(SAT)}$	$I_C=100mA, I_B=10mA$		0.3	V
$V_{BE(ON)}$	$V_{CE}=5.0V, I_C=10mA$	0.6	0.8	V
$h_{FE}$	$V_{CE}=5.0V, I_C=1.0mA$	100	300	
$h_{FE}$	$V_{CE}=5.0V, I_C=10mA$	100		
$h_{FE}$	$V_{CE}=5.0V, I_C=100mA$	75		
$f_T$	$V_{CE}=5.0V, I_C=10mA, f=100MHz$	150		MHz
$C_{ob}$	$V_{CB}=10V, I_E=0, f=1.0MHz$		6.0	pF
$C_{ib}$	$V_{BE}=0.5V, I_C=0, f=1.0MHz$		25	pF

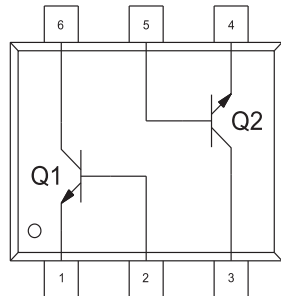
**CMLT8099**  
**SURFACE MOUNT SILICON**  
**DUAL NPN TRANSISTOR**



**SOT-563 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

**LEAD CODE:**

- 1) Emitter Q1
- 2) Base Q1
- 3) Collector Q2
- 4) Emitter Q2
- 5) Base Q2
- 6) Collector Q1

**MARKING CODE: C89**

R3 (29-June 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

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

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- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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- Up-screening capabilities
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- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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