RoHS Compliant **Pb** Pb-Free Plating

CMLT8099

SURFACE MOUNT
PICOmini™
DUAL NPN SMALL SIGNAL
SILICON TRANSISTORS

PICOmini™
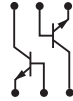
SOT-563 CASE

Central™
Semiconductor Corp.

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 PICOmini™ device has been designed for small signal general purpose amplifier applications.

MARKING CODE: C89

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

APPLICATIONS:
- Small signal general purpose amplifiers

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continous 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

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=80V		0.1	μA
I_{EBO}	V_{BE}=6.0V		0.1	μA
BV_{CBO}	I_C=100μA	80		V
BV_{CEO}	I_C=10mA	80		V
BV_{EBO}	I_E=10μA	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

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CMLT8099

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SOT-563 CASE - MECHANICAL OUTLINE

R0
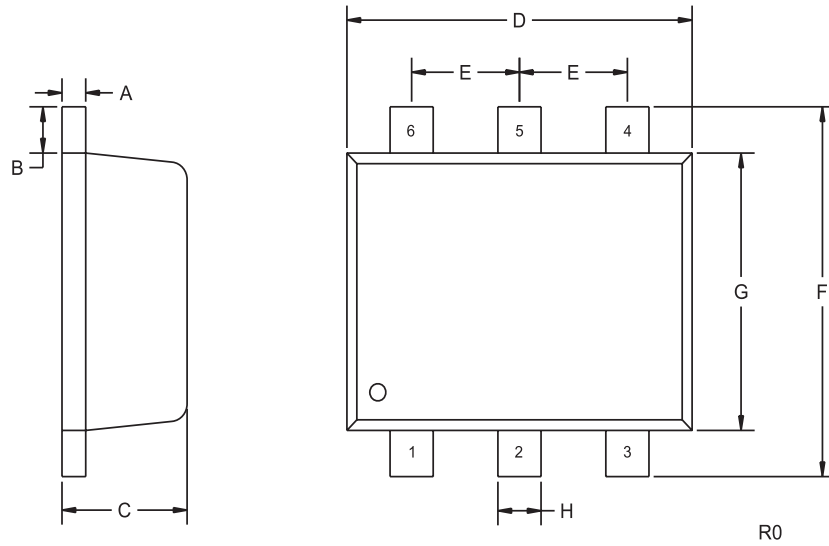
DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

PIN CONFIGURATION
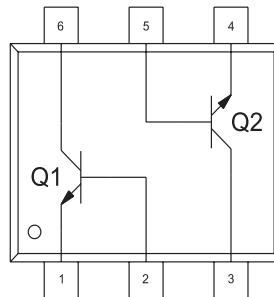
LEAD CODE:
1) EMITTER Q1
2) BASE Q1
3) COLLECTOR Q2
4) EMITTER Q2
5) BASE Q2
6) COLLECTOR Q1

MARKING CODE: C89

R0 (19-November 2008)