

CMLT2907A
SURFACE MOUNT
PICOmini™
DUAL PNP SILICON TRANSISTORS



Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLT2907A consists of two individual, isolated 2907A PNP silicon transistors, manufactured by the epitaxial planar process and epoxy molded in an SOT-563 surface mount package. This PICOmini™ devices has been designed for small signal general purpose and switching applications.

MARKING CODE: L07

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	60	V
Collector-Emitter Voltage	V _{CEO}	60	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	600	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} =50V		10	nA
I _{CBO}	V _{CB} =50V, T _A =125°C		10	µA
I _{CEV}	V _{CE} =30V, V _{BE} =0.5V		50	nA
BV _{CB0}	I _C =10µA	60		V
BV _{CEO}	I _C =10mA	60		V
BV _{EBO}	I _E =10µA	5.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.4	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		1.6	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA		1.3	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA		2.6	V
h _{FE}	V _{CE} =10V, I _C =0.1mA	75		
h _{FE}	V _{CE} =10V, I _C =1.0mA	100		
h _{FE}	V _{CE} =10V, I _C =10mA	100		
h _{FE}	V _{CE} =10V, I _C =150mA	100	300	
h _{FE}	V _{CE} =10V, I _C =500mA	50		

R1 (13-November 2002)

**SURFACE MOUNT
PICominiTM
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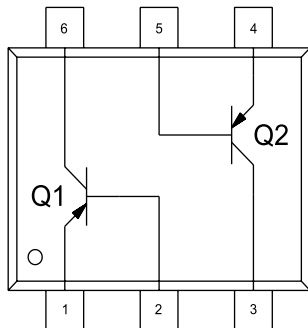
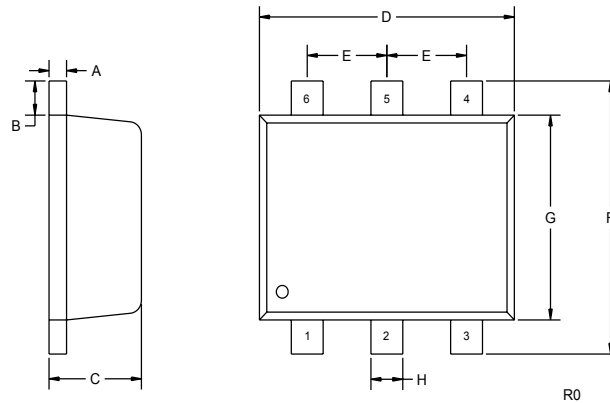
ELECTRICAL CHARACTERISTICS: Continued

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	$V_{CE}=20V, I_C=50mA, f=100MHz$	200		MHz
C_{ob}	$V_{CB}=10V, I_E=0, f=1.0MHz$		8.0	pF
C_{ib}	$V_{BE}=2.0V, I_C=0, f=1.0MHz$		30	pF
t_{on}	$V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA$		45	ns
t_d	$V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA$		10	ns
t_r	$V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA$		40	ns
t_{off}	$V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA$		100	ns
t_s	$V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA$		80	ns
t_f	$V_{CC}=6.0V, I_C=150mA, I_{B1}=I_{B2}=15mA$		30	ns

SOT-563 CASE - MECHANICAL OUTLINE

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)



LEAD CODE:

- 1) EMITTER Q1
- 2) BASE Q1
- 3) COLLECTOR Q2
- 4) EMITTER Q2
- 5) BASE Q2
- 6) COLLECTOR Q1

MARKING CODE: L07