CMLT2907A

SURFACE MOUNT
PICOmini™
DUAL PNP SILICON TRANSISTORS



SOT-563 CASE

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_{CBO}	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_{CBO}	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)

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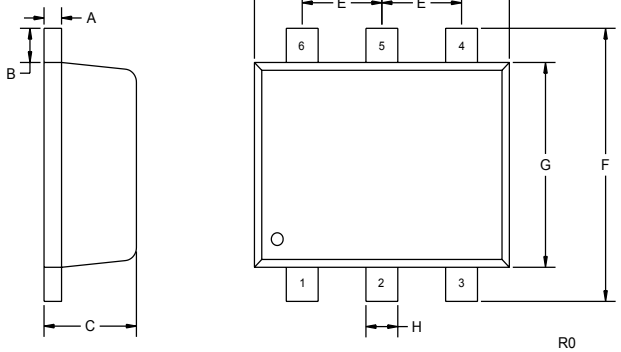
ELECTRICAL CHARACTERISTICS: Continued

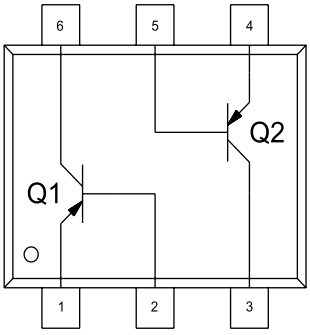
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	V_{CE}=20V, I_C=50mA, f=100MHz	200		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		8.0	pF
C_{ib}	V_{BE}=2.0V, I_C=0, f=1.0MHz		30	pF
t_{on}	V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA		45	ns
t_d	V_{CC}=30V, V_{BE}=0.5V, I_C=150mA, I_{B1}=15mA		10	ns
t_r	V_{CC}=30V,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

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)





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

MARKING CODE: L07

R1 (13-November 2002)