

CMLT2907A
SURFACE MOUNT
DUAL PNP
SILICON TRANSISTORS



www.centra-semi.com

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

PICOmini™



SOT-563 CASE

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CB0} 60
 V_{CEO} 60
 V_{EBO} 5.0
 I_C 600
 P_D 350
 T_J, T_{stg} -65 to +150
 θ_{JA} 357

UNITS

V
V
V
mA
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=50\text{V}$		10	nA
I_{CBO}	$V_{CB}=50\text{V}, T_A=125^{\circ}\text{C}$		10	μA
I_{CEV}	$V_{CE}=30\text{V}, V_{BE}=0.5\text{V}$		50	nA
BV_{CBO}	$I_C=10\mu\text{A}$	60		V
BV_{CEO}	$I_C=10\text{mA}$	60		V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.4	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.6	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.3	V
$V_{BE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		2.6	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	75		
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	100		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	100		
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100	300	
h_{FE}	$V_{CE}=10\text{V}, I_C=500\text{mA}$	50		

R2 (20-January 2010)

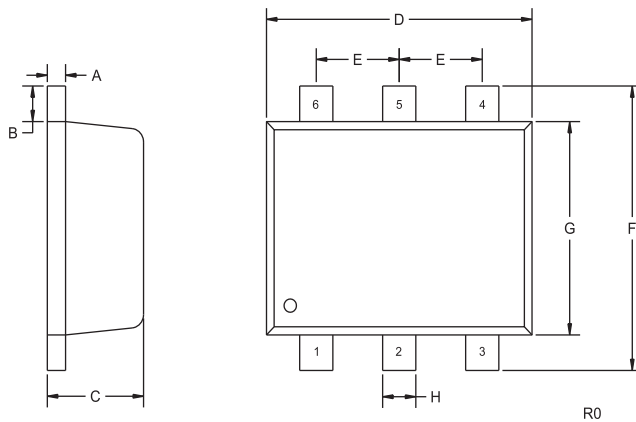
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ELECTRICAL CHARACTERISTICS - Continued:

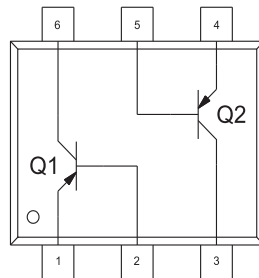
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	$V_{CE}=20V$, $I_C=50mA$, $f=100MHz$	200		MHz
C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1.0MHz$		8.0	pF
C_{ib}	$V_{BE}=2.0V$, $I_C=0$, $f=1.0MHz$		30	pF
t_{on}	$V_{CC}=30V$, $V_{BE}=0.5V$, $I_C=150mA$, $I_{B1}=15mA$		45	ns
t_d	$V_{CC}=30V$, $V_{BE}=0.5V$, $I_C=150mA$,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

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