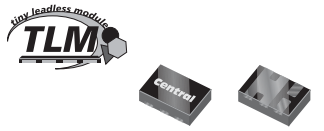
CTLT3410-M621 (NPN)
CTLT7410-M621 (PNP)

SURFACE MOUNT
COMPLEMENTARY
LOW $V_{CE(SAT)}$
SILICON TRANSISTORS



TLM621 CASE

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLT3410-M621 and CTLT7410-M621 are Low $V_{CE(SAT)}$ transistors in a very small leadless 1x2mm surface mount package, designed for applications where small size, operational efficiency, and low energy consumption are prime requirements. Due to the leadless package design, these devices are capable of dissipating up to 3 times the power of similar devices in comparable sized surface mount packages.

MARKING CODES: CTLT3410-M621: CB
CTLT7410-M621: CD

APPLICATIONS:

- DC/DC Converters
- Switching Circuits
- LCD Backlighting
- Battery Powered Portable Equipment

FEATURES:

- High Operational Efficiency
- High Power to Footprint Ratio
- $V_{CE(SAT)}$ @ 1.0A = 250mV TYP
- High Collector Current
- Small TLM621 1x2mm Package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	1.0	A
Peak Collector Current	I_{CM}	1.5	A
Power Dissipation (Note 1)	P_D	0.9	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance (Note 1)	Θ_{JA}	139	°C/W

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

			TYP			
SYMBOL	**TEST CONDITIONS**	**MIN**	**PNP**	**NPN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=40V				100	nA
I_{EBO}	V_{EB}=6.0V				100	nA
BV_{CBO}	I_C=100μA	40				V
BV_{CEO}	I_C=10mA	25				V
BV_{EBO}	I_E=100μA	6.0				V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		20	25	50	mV
$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		35	40	75	mV
$V_{CE(SAT)}$	I_C=200mA, I_B=20mA		75	80	150	mV
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		130	150	250	mV
$V_{CE(SAT)}$	I_C=800mA, I_B=80mA		200	220	400	mV
$V_{CE(SAT)}$	I_C=1.0A, I_B=100mA		250	275	450	mV

Notes (1) FR-4 Epoxy PCB with copper mounting pad area of 33mm^2

R2 (2-December 2010)

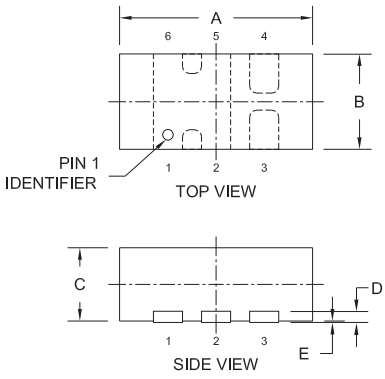
CTLT3410-M621 (NPN)
CTLT7410-M621 (PNP)

SURFACE MOUNT
COMPLEMENTARY
LOW $V_{CE(SAT)}$
SILICON TRANSISTORS

ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	TYP NPN	TYP PNP	MAX	UNITS
$V_{BE(SAT)}$	I_C=800mA, I_B=80mA				1.1	V
$V_{BE(ON)}$	V_{CE}=1.0V, I_C=10mA				0.9	V
h_{FE}	V_{CE}=1.0V, I_C=10mA	100				
h_{FE}	V_{CE}=1.0V, I_C=100mA	100			300	
h_{FE}	V_{CE}=1.0V, I_C=500mA	100				
h_{FE}	V_{CE}=1.0V, I_C=1.0A	50				
f_T	V_{CE}=10V, I_C=50mA, f=100MHz	100				MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		10	15		pF

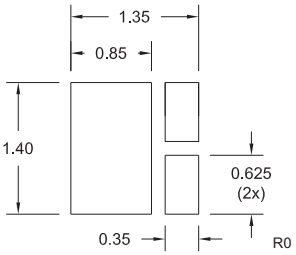
TLM621 CASE - MECHANICAL OUTLINE

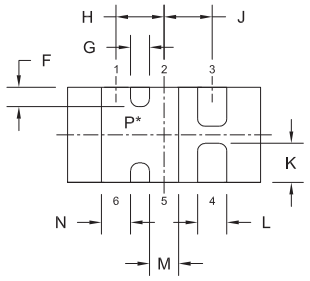


DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.073	0.085	1.850	2.150
B	0.033	0.045	0.850	1.150
C	0.028	0.031	0.700	0.800
D	0.006		0.150	
E	0.000	0.002	0.000	0.050
F	0.008		0.200	
G	0.010		0.250	
H	0.020		0.500	
J	0.020		0.500	
K	0.012	0.020	0.300	0.500
L	0.007	0.012	0.180	0.300
M	0.007	0.012	0.180	0.300
N	0.007	0.012	0.180	0.300

TLM621 (REV: R2)

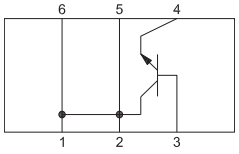
SUGGESTED MOUNTING PADS
(Dimensions in mm)



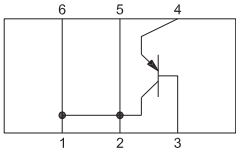


* Exposed pad P connects pins 1, 2, 5, and 6.

PIN CONFIGURATIONS



CTLT3410-M621



CTLT7410-M621

LEAD CODES:
1) Collector
2) Collector
3) Base
4) Emitter
5) Collector
6) Collector

MARKING CODES:
CTLT3410-M621: CB
CTLT7410-M621: CD

R2 (2-December 2010)