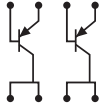


CYT7090LD

SURFACE MOUNT
DUAL, ISOLATED
LOW $V_{CE(SAT)}$ PNP
SILICON POWER TRANSISTORS

SUPERmini™



SOT-228 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CYT7090LD consists of two (2) isolated Low $V_{CE(SAT)}$ PNP Power Transistors packaged in an epoxy molded SOT-228 surface mount case.

MARKING: FULL PART NUMBER

APPLICATIONS:

- DC/DC Converters (low and medium power)
- Power Management
- Supply Line Switching

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

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

FEATURES:

- Low Saturation Voltage, 750mV MAX @ $I_C=2.0\text{A}$
- High Current, $I_C=3.0\text{A}$
- Efficient Dual Device Package

SYMBOL

SYMBOL		UNITS
V_{CBO}	50	V
V_{CEO}	40	V
V_{EBO}	5.0	V
I_C	3.0	A
I_{CM}	5.0	A
P_D	2.0	W
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	62.5	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=30\text{V}$			100	nA
I_{CBO}	$V_{CB}=30\text{V}, T_A=100^\circ\text{C}$			10	μA
I_{EBO}	$V_{EB}=4.0\text{V}$			100	nA
BV_{CBO}	$I_C=100\mu\text{A}$	50			V
BV_{CEO}	$I_C=10\text{mA}$	40			V
BV_{EBO}	$I_E=100\mu\text{A}$	5.0			V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=5.0\text{mA}$		100	250	mV
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=10\text{mA}$		175	450	mV
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=50\text{mA}$		250	750	mV
$V_{BE(SAT)}$	$I_C=1.0\text{A}, I_B=10\text{mA}$		0.8	1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=10\text{mA}$	300		800	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$	250			
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$	200			
h_{FE}	$V_{CE}=2.0\text{V}, I_C=2.0\text{A}$	150			
f_T	$V_{CE}=5.0\text{V}, I_C=50\text{mA}, f=50\text{MHz}$	100			MHz

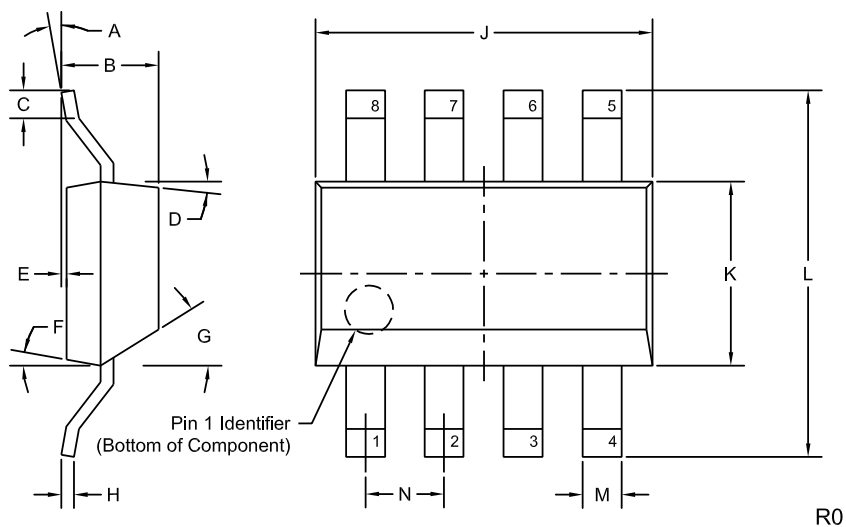
R1 (23-February 2010)

CYT7090LD

SURFACE MOUNT
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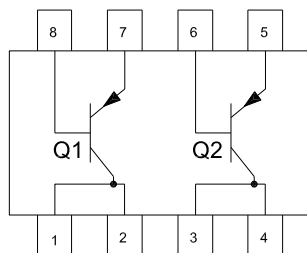


SOT-228 CASE - MECHANICAL OUTLINE



R0

PIN CONFIGURATION



LEAD CODE:

- | | |
|-----------------|---------------|
| 1) Collector Q1 | 5) Emitter Q2 |
| 2) Collector Q1 | 6) Base Q2 |
| 3) Collector Q2 | 7) Emitter Q1 |
| 4) Collector Q2 | 8) Base Q1 |

MARKING: FULL PART NUMBER

DIMENSIONS

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	--	0.075	--	1.90
C	0.018	--	0.45	--
D	4°	10°	4°	10°
E	0.000	0.004	0.00	0.10
F	4°	10°	4°	10°
G	36°	45°	36°	45°
H	0.010		0.25	
J	0.248	0.264	6.30	6.70
K	0.130	0.146	3.30	3.70
L	0.264	0.287	6.70	7.30
M	0.027	0.030	0.68	0.76
N	0.060		1.53	

SOT-228 (REV: R0)

R1 (23-February 2010)