

CYT7090LD

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



www.centrasemi.com



SOT-228 CASE

**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

**FEATURES:**

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

**MAXIMUM RATINGS:** ( $T_A=25^\circ C$ )

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

**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	$^\circ C$
$\theta_{JA}$	62.5	$^\circ C/W$

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

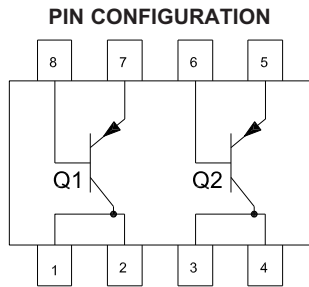
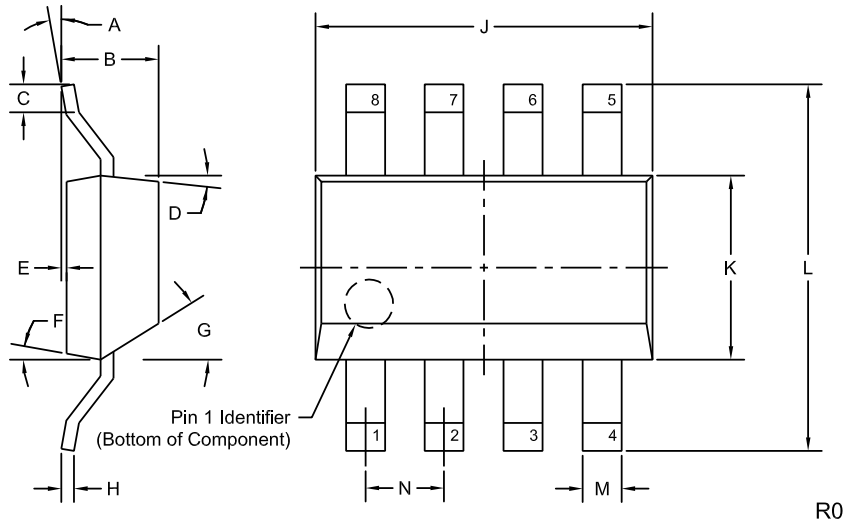
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=30V$			100	nA
$I_{CBO}$	$V_{CB}=30V, T_A=100^\circ C$			10	$\mu A$
$I_{EBO}$	$V_{EB}=4.0V$			100	nA
$BV_{CBO}$	$I_C=100\mu A$	50			V
$BV_{CEO}$	$I_C=10mA$	40			V
$BV_{EBO}$	$I_E=100\mu A$	5.0			V
$V_{CE(SAT)}$	$I_C=500mA, I_B=5.0mA$		100	250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

R1 (23-February 2010)

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**SOT-228 CASE - MECHANICAL OUTLINE**



- 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    |

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)

**MARKING: FULL PART NUMBER**

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