

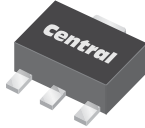
CXT7090L

**SURFACE MOUNT  
LOW  $V_{CE(SAT)}$  PNP  
SILICON POWER TRANSISTOR**



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**POWER  
89**



**SOT-89 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXT7090L is a Low  $V_{CE(SAT)}$  PNP Transistor in a Power SOT-89 surface mount package, designed for DC-DC converters for mobile systems and LAN cards, motor control, power management and strobe flash units.

**MARKING: FULL PART NUMBER**

**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

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
$P_D$	1.2	W
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	104	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )

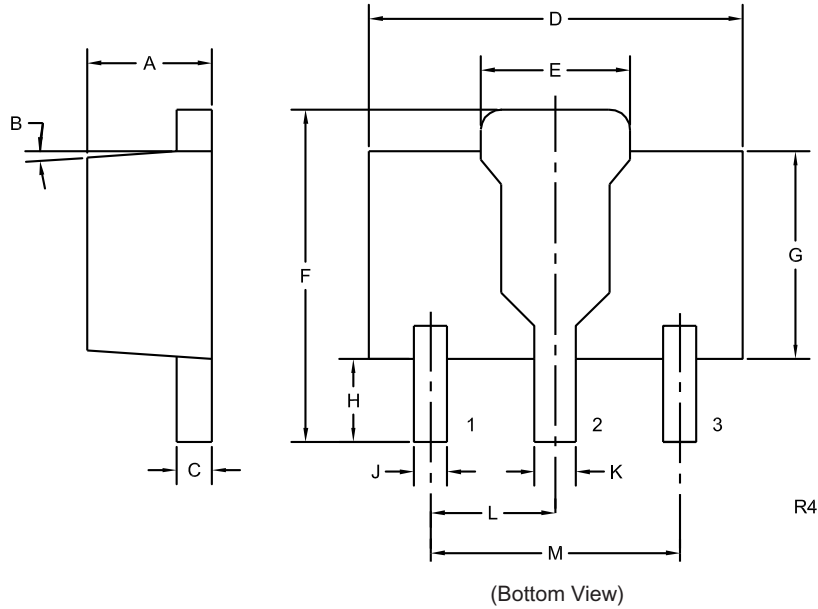
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=30\text{V}$			100	nA
$I_{CBO}$	$V_{CB}=30\text{V}, T_A=100^\circ\text{C}$			10	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0\text{V}$			100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	50			V
$BV_{CEO}$	$I_C=10\text{mA}$	40			V
$BV_{EBO}$	$I_E=100\mu\text{A}$	5.0			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			
$f_T$	$V_{CE}=5\text{V}, I_C=50\text{mA}, f=50\text{MHz}$	100			MHz

R3 (23-February 2010)

**CXT7090L**  
**SURFACE MOUNT**  
**LOW  $V_{CE(SAT)}$  PNP**  
**SILICON POWER TRANSISTOR**



**SOT-89 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Emitter
- 2) Collector
- 3) Base

**MARKING:**  
**FULL PART NUMBER**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R3 (23-February 2010)