

CMXT7090L

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



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SUPERmini™



SOT-26 CASE

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXT7090L is a Low  $V_{CE(SAT)}$  PNP Transistor in a six lead Power SOT-26 surface mount package designed for LAN cards, motor control, power management, strobe flash units and DC-DC converters for mobile systems.

**MARKING CODE: X709L**

**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**

$V_{CBO}$	50
$V_{CEO}$	40
$V_{EBO}$	5.0
$I_C$	3.0
$I_{CM}$	6.0
$P_D$	350
$T_J, T_{stg}$	-65 to +150
$\theta_{JA}$	357

**UNITS**

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

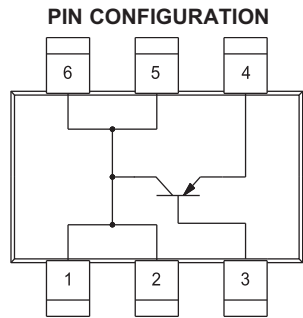
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

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	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0\text{V}$			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			
$f_T$	$V_{CE}=5.0\text{V}, I_C=50\text{mA}, f=50\text{MHz}$	100			MHz

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**SOT-26 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.11	0.19
B	0.016	-	0.40	-
C	-	0.004	-	0.10
D	0.039	0.047	1.00	1.20
E	0.074	0.075	1.88	1.92
F	0.037	0.038	0.93	0.97
G	0.102	0.118	2.60	3.00
H	0.059	0.067	1.50	1.70
I	0.016		0.41	
J	0.110	0.118	2.80	3.00

SOT-26 (REV: R2)

- LEAD CODE:**
- 1) Collector
  - 2) Collector
  - 3) Base
  - 4) Emitter
  - 5) Collector
  - 6) Collector
- (Pins 1, 2, 5 and 6 are common.)

**MARKING CODE: X709L**

R2 (12-February 2010)