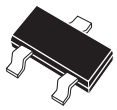
CMPT7090L

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

POWER 23

EED ENERGY EFFICIENT DEVICE



SOT-23 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT7090L is a Low $V_{CE(SAT)}$ PNP Transistor in a space saving Power SOT-23 surface mount package, designed for DC-DC converters for mobile systems and LAN cards, motor control, power management and strobe flash units.

MARKING CODE: 709L

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	3.0	A
Peak Pulse Current	I_{CM}	6.0	A
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°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°C			10	µA
I_{EBO}	V_{EB}=4.0V			100	nA
BV_{CBO}	I_C=100µA	50			V
BV_{CEO}	I_C=10mA	40			V
BV_{EBO}	I_E=100µA	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}=5V, I_C=50mA, f=50MHz	100			MHz

R1 (17-December 2002)

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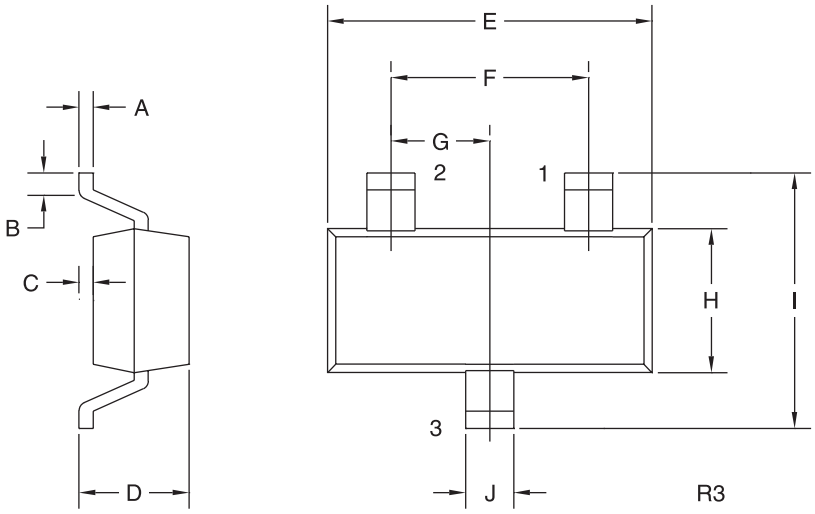
CMPT7090L

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

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) EMITTER
3) COLLECTOR

MARKING CODE: 709L

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R1 (17-December 2002)