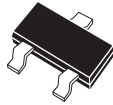


CMPT5086
CMPT5087

PNP SILICON TRANSISTOR



SOT-23 CASE

Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPT5086, CMPT5087 types are PNP silicon transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring high gain and low noise.

MARKING CODES:

CMPT5086: C2P

CMPT5087: C2Q

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

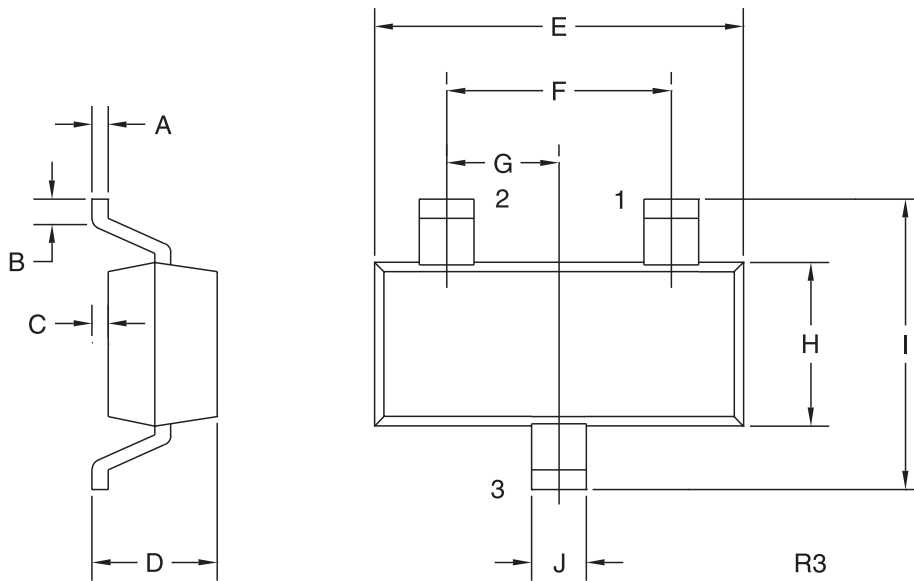
Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage
Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_{CB0}	50	V
V_{CEO}	50	V
V_{EBO}	3.0	V
I_C	50	mA
P_D	350	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	357	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	CMPT5086		CMPT5087		UNITS
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=10\text{V}$		10		10	nA
I_{CB0}	$V_{CB}=35\text{V}$		50		50	nA
BV_{CB0}	$I_C=100\mu\text{A}$	50		50		V
BV_{CEO}	$I_C=1.0\text{mA}$	50		50		V
BV_{EBO}	$I_E=100\mu\text{A}$	3.0		3.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.30		0.30	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.85		0.85	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=0.1\text{mA}$	150	500	250	800	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	150		250		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	150		250		
f_T	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}, f=20\text{MHz}$	40		40		MHz
C_{ob}	$V_{CB}=5.0\text{V}, I_E=0, f=1.0\text{MHz}$		4.0		4.0	pF
h_{fe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	150	600	250	900	
NF	$V_{CE}=5.0\text{V}, I_C=20\text{mA}, R_S=10\text{k}\Omega$		3.0		2.0	dB
NF	$f=10\text{Hz to } 15.7\text{kHz}$ $V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_S=3.0\text{k}\Omega, f=1.0\text{kHz}$		3.0		2.0	dB

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

MARKING CODES:

CMPT5086: C2P
CMPT5087: C2Q

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)