

CMPT5086
CMPT5087

PNP SILICON TRANSISTOR



SOT-23 CASE

CentralTM
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 are C2P and C2Q
Respectively.**

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

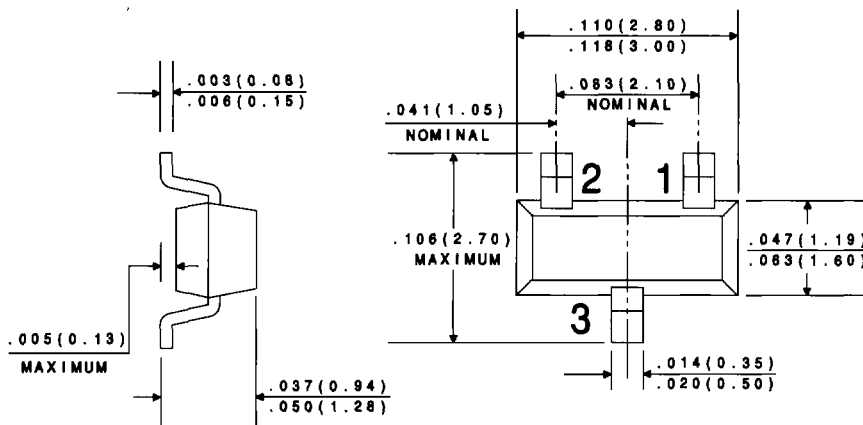
	SYMBOL		UNITS
Collector-Base Voltage	V_{CB0}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	50	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}	357	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	CMPT5086		CMPT5087		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=10\text{V}$		10		10	nA
I_{CBO}	$V_{CB}=35\text{V}$		50		50	nA
BV_{CBO}	$I_C=100\mu\text{A}$	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	

SYMBOL	TEST CONDITIONS	CMPT5086		CMPT5087		UNITS
		MIN	MAX	MIN	MAX	
NF	$V_{CE}=5.0V$, $I_C=20mA$, $R_S=10k\Omega$ $f=10Hz$ to $15.7kHz$		3.0		2.0	dB
NF	$V_{CE}=5.0V$, $I_C=100\mu A$, $R_S=3.0k\Omega$, $f=1.0kHz$		3.0		2.0	dB

All dimensions in inches (mm).



LEAD CODE:

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

DATA
SHEET

R2