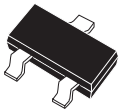
**CMPT5086**
**CMPT5087**

**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 are C2P and C2Q Respectively.**

**MAXIMUM RATINGS** ($T_A$=25°C)

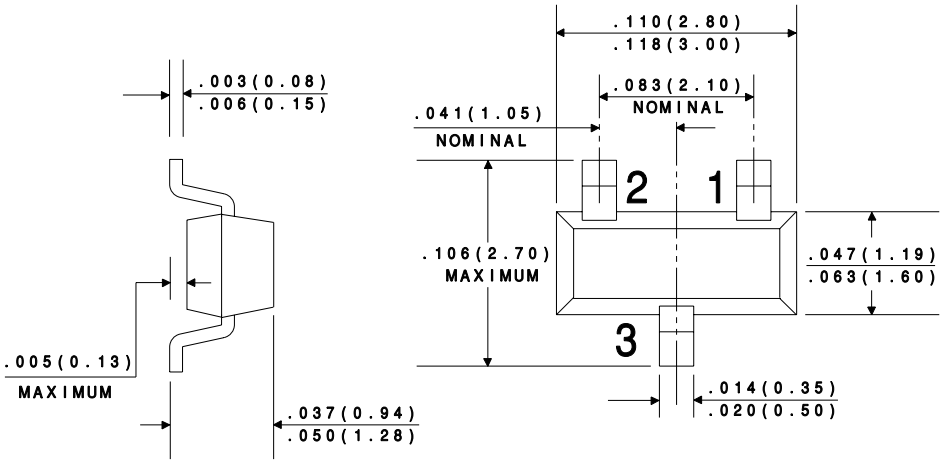
| | SYMBOL | | UNITS |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | 50 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | 50 | V |
| Emitter-Base Voltage | $V_{EBO}$ | 3.0 | V |
| Collector Current | $I_C$ | 50 | mA |
| Power Dissipation | $P_D$ | 350 | mW |
| Operating and Storage Junction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

**ELECTRICAL CHARACTERISTICS** ($T_A$=25°C unless otherwise noted)

| | | CMPT5086 | | CMPT5087 | | |
|---|---|---|---|---|---|---|
| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **MAX** | **MIN** | **MAX** | **UNITS** |
| $I_{CBO}$ | $V_{CB}$=10V | | 10 | | 10 | nA |
| $I_{CBO}$ | $V_{CB}$=35V | | 50 | | 50 | nA |
| $BV_{CBO}$ | $I_C$=100μA | 50 | | 50 | | V |
| $BV_{CEO}$ | $I_C$=1.0mA | 50 | | 50 | | V |
| $BV_{EBO}$ | $I_E$=100μA | 3.0 | | 3.0 | | V |
| $V_{CE(SAT)}$ | $I_C$=10mA, $I_B$=1.0mA | | 0.30 | | 0.30 | V |
| $V_{BE(SAT)}$ | $I_C$=10mA, $I_B$=1.0mA | | 0.85 | | 0.85 | V |
| $h_{FE}$ | $V_{CE}$=5.0V, $I_C$=0.1mA | 150 | 500 | 250 | 800 | |
| $h_{FE}$ | $V_{CE}$=5.0V, $I_C$=1.0mA | 150 | | 250 | | |
| $h_{FE}$ | $V_{CE}$=5.0V, $I_C$=10mA | 150 | | 250 | | |
| $f_T$ | $V_{CE}$=5.0V, $I_C$=500μA, f=20MHz | 40 | | 40 | | MHz |
| $C_{ob}$ | $V_{CB}$=5.0V, $I_E$=0, f=1.0MHz | | 4.0 | | 4.0 | pF |
| $h_{fe}$ | $V_{CE}$=5.0V, $I_C$=1.0mA, f=1.0kHz | 150 | 600 | 250 | 900 | |

| SYMBOL | TEST CONDITIONS | CMPT5086 MIN | CMPT5086 MAX | CMPT5087 MIN | CMPT5087 MAX | UNITS |
|---|---|---|---|---|---|---|
| NF | $V_{CE}$=5.0V, $I_C$=20mA, $R_S$=10kΩ f=10Hz to 15.7kHz | | 3.0 | | 2.0 | dB |
| NF | $V_{CE}$=5.0V, $I_C$=100μA, $R_S$=3.0kΩ, f=1.0kHz | | 3.0 | | 2.0 | dB |

All dimensions in inches (mm).




LEAD CODE:

1) BASE
2) EMITTER
3) COLLECTOR

R2