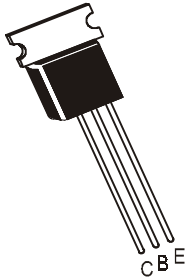


PNP SILICON PLANAR TRANSISTOR

**CP100
CN100**

**TO-237
Plastic Package**



CN100 And CP100 Are Medium Power Transistors Suitable For a Wide Range of Medium Voltage and Current Applications.

Complementary CN100

ABSOLUTE MAXIMUM RATINGS(Ta=25°C unless specified otherwise)

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|--|----------------|-------------|-------|
| Collector -Base Voltage | V_{CBO} | 60 | V |
| Collector -Emitter Voltage | V_{CEO} | 50 | V |
| Emitter Base Voltage | V_{EBO} | 7 | V |
| Collector Current Continuous | I_C | 1 | A |
| Power Dissipation @Ta=25°C | P_{TA} | 800 | mW |
| Derate Above 25°C | | 6 | mW/°C |
| Operating and Storage Junction Temperature Range | T_j, T_{stg} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

| DESCRIPTION | SYMBOL | TEST CONDITION | VALUE | | UNIT |
|--------------------------------------|-----------------|------------------------|-------|-----|------|
| | | | MIN | MAX | |
| Collector Emitter Breakdown Voltage | V_{CEO}^* | $I_C=10mA, I_B=0$ | 50 | | V |
| Collector -Base Breakdown Voltage | V_{CBO} | $I_C=100\mu A, I_E=0$ | 60 | | V |
| Emitter-Base Breakdown Voltage | V_{EBO} | $I_E=100\mu A, I_C=0$ | 7 | | V |
| Collector Leakage Current | I_{CBO} | $V_{CB}=40V, I_E=0$ | | 50 | nA |
| Emitter Leakage Current | I_{EBO} | $V_{EB}=5V, I_E=0$ | | 25 | nA |
| DC Current Gain | h_{FE}^* | $I_C=150mA, V_{CE}=1V$ | 50 | 280 | |
| Collector Emitter Saturation Voltage | $V_{CE(sat)}^*$ | $I_C=150mA, I_B=15mA$ | | 0.6 | V |
| Base Emitter On Voltage | $V_{BE(on)}$ | $I_C=150mA, V_{CE}=1V$ | | 0.9 | V |

| DESCRIPTION | SYMBOL | TEST CONDITION | VALUE | | | UNIT |
|-------------|--------|----------------|-------|-----|-----|------|
| | | | MIN | TYP | MAX | |

DYNAMIC CHARACTERISTICS

| | | | | | |
|----------------------|-------|---------------------------------|----|--|--|
| Transition Frequency | f_T | $V_{CE}=10V, I_C=50mA, f=20MHz$ | 80 | | |
|----------------------|-------|---------------------------------|----|--|--|

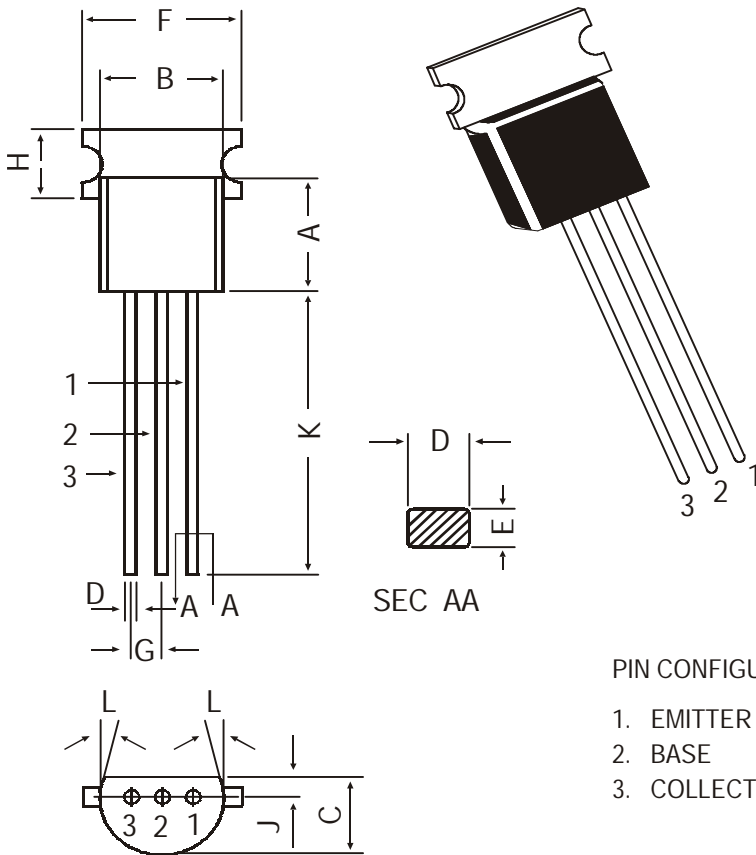
*Pulse Condition: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

| CLASSIFICATION | A | B |
|----------------|--------|---------|
| hFE | 50-120 | 100-200 |

**CP100
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All dimensions in mm.

| DIM | MIN. | MAX. |
|-----|-------|------|
| A | 4.32 | 5.33 |
| B | 4.45 | 5.20 |
| C | 3.18 | 4.19 |
| D | 0.41 | 0.55 |
| E | 0.35 | 0.50 |
| F | — | 5.40 |
| G | 1.14 | 1.40 |
| H | — | 2.54 |
| K | 12.70 | — |
| L | 5 DEG | |
| J | 1.14 | 1.53 |

PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR

www.DataSheet.in

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|-------------|---------------|----------------|-------------------|-----|-------------------|-----|----------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| TO-237 Bulk | 1K/polybag | 240 gm/1K pcs | 3" x 7.5" x 7.5" | 5K | 17" x 15" x 13.5" | 80K | 26.2 kgs |
| TO-237 T&A | 2K/ammo box | 725 gm/2K pcs | 12.5" x 8" x 1.8" | 2K | 17" x 15" x 13.5" | 32K | 13.8 kgs |

Disclaimer

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