

# TRANSISTOR (PNP)

# Plastic-Encapsulate Transistor

## FEATURES

Power dissipation

$$P_{CM}: 0.4W (T_{amb}=25^{\circ}C)$$

Collector current

$$I_{CM}: -0.15A$$

Collector-base voltage

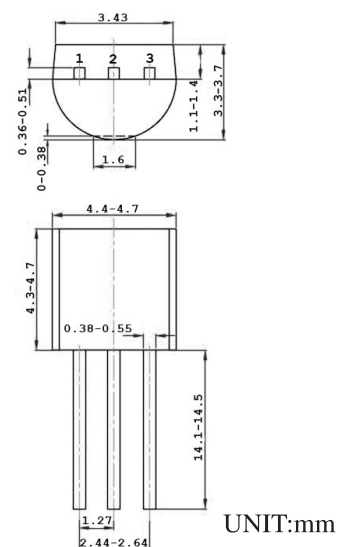
$$V_{(BR)CBO}: -50V$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}C \text{ to } +150^{\circ}C$$

## TO-92

1. EMITTER
2. COLLECTOR
3. BASE



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

## ELECTRICAL CHARACTERISTICS

| Parameters                           | Symbol        | Test conditions                      | MIN | MAX   | UNIT    |
|--------------------------------------|---------------|--------------------------------------|-----|-------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=-100\mu A, I_E=0$               | -50 |       | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=-0.1mA, I_B=0$                  | -50 |       | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=-50V, I_E=0$                 |     | -0.1  | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=-5V, I_C=0$                  |     | -0.1  | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE}=-6V, I_C=-2mA$               | 70  | 400   |         |
| Collector-emitter saturation voltage | $V_{CEsat}$   | $I_C=-100mA, I_B=-10mA$              |     | -0.3  | V       |
| Base-emitter saturation voltage      | $V_{BEsat}$   | $I_C=-100mA, I_B=-10mA$              |     | -1.1  | V       |
| Base-emitter voltage                 | $V_{BE}$      | $I_E=-310mA$                         |     | -1.45 | V       |
| Transition frequency                 | $f_r$         | $V_{CE}=-10V, I_C=-1mA$<br>$f=30MHz$ | 80  |       | MHz     |

## CLASSIFICATION OF $h_{FE}$

| Rank  | O      | Y       | GR      |
|-------|--------|---------|---------|
| Range | 70-140 | 120-240 | 200-400 |