

### S9015 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 0.45 \text{ W (Tamb=25°C)}$$

Collector current

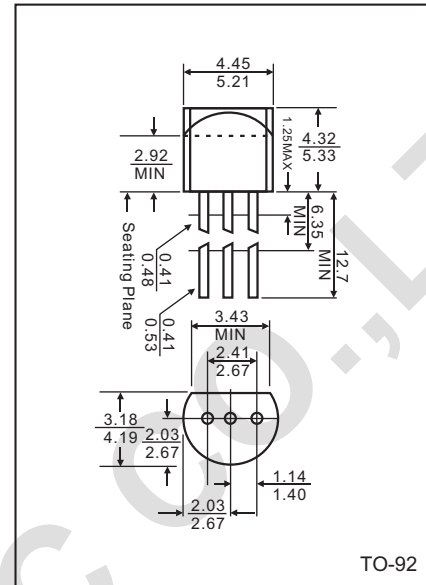
$$I_{CM}: -0.1 \text{ A}$$

Collector-base voltage

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

Operating and storage junction temperature range

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



TO-92

#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

| Parameter                            | Symbol        | Test conditions                            | MIN | TYP | MAX   | UNIT    |
|--------------------------------------|---------------|--|-----|-----|-------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu A, I_E = 0$                 | -50 |     |       | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1mA, I_B = 0$                      | -45 |     |       | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu A, I_C = 0$                 | -5  |     |       | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -50V, I_E = 0$                   |     |     | -0.05 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5V, I_C = 0$                    |     |     | -0.05 | $\mu A$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -5V, I_C = -1mA$                 | 60  |     | 1000  |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -10mA$                |     |     | -0.3  | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -100mA, I_B = -10mA$                |     |     | -1    | V       |
| Transition frequency                 | $f_T$         | $V_{CE} = -5V, I_C = -10mA$<br>$f = 30MHz$ | 150 |     |       | MHz     |

#### CLASSIFICATION OF $h_{FE(1)}$

| Rank  | A      | B       | C       | D        |
|-------|--------|---------|---------|----------|
| Range | 60-150 | 100-300 | 200-600 | 400-1000 |