

**S8550** TRANSISTOR (PNP)**FEATURE**

Power dissipation

 $P_{CM}$ : 0.625 W ( $T_{amb}=25^{\circ}C$ )

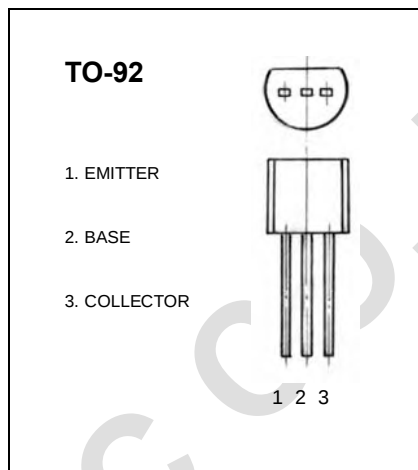
Collector current

 $I_{CM}$ : -0.5 A

Collector-base voltage

 $V_{(BR)CBO}$ : -40 V

Operating and storage junction temperature range

 $T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$ **ELECTRICAL CHARACTERISTICS** ( $T_{amb}=25^{\circ}C$  unless otherwise specified)

| Parameter                            | Symbol        | Test conditions                            | MIN | TYP | MAX  | UNIT    |
|--------------------------------------|---------------|--------------------------------------------|-----|-----|------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu A, I_E = 0$                 | -40 |     |      | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -0.1 mA, I_B = 0$                   | -25 |     |      | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu A, I_C = 0$                 | -5  |     |      | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -40V, I_E = 0$                   |     |     | -0.1 | $\mu A$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CE} = -20V, I_B = 0$                   |     |     | -0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -3V, I_C = 0$                    |     |     | -0.1 | $\mu A$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -1V, I_C = -50mA$                | 85  |     | 300  |         |
|                                      | $h_{FE(2)}$   | $V_{CE} = -1V, I_C = -500mA$               | 50  |     |      |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500mA, I_B = -50mA$                |     |     | -0.6 | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -500mA, I_B = -50mA$                |     |     | -1.2 | V       |
| Transition frequency                 | $f_T$         | $V_{CE} = -6V, I_C = -20mA$<br>$f = 30MHz$ | 150 |     |      | MHz     |

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

| Rank  | B      | C       | D       |
|-------|--------|---------|---------|
| Range | 85-160 | 120-200 | 160-300 |