

## D965 TRANSISTOR (NPN)

### FEATURES

Power dissipation

$$P_{CM}: 0.75 \text{ W (Tamb=25°C)}$$

Collector current

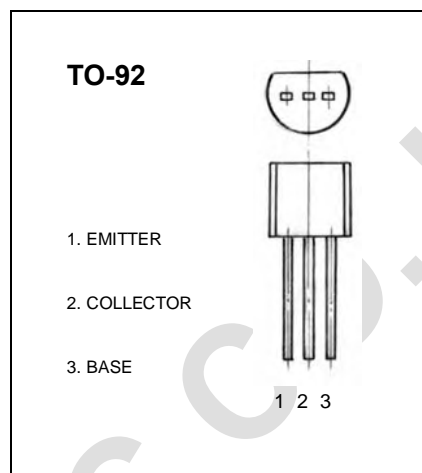
$$I_{CM}: 5 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 42 \text{ V}$$

Operating and storage junction temperature range

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



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

| Parameter                            | Symbol        | Test conditions                       | MIN | TYP | MAX  | UNIT          |
|--------------------------------------|---------------|---------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=1\text{mA}, I_E=0$               | 42  |     |      | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=1\text{mA}, I_B=0$               | 22  |     |      | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=10\mu\text{A}, I_C=0$            | 6   |     |      | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=30\text{V}, I_E=0$            |     |     | 0.1  | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=6\text{V}, I_C=0$             |     |     | 0.1  | $\mu\text{A}$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE}=2\text{V}, I_C=0.15\text{mA}$ | 150 |     |      |               |
|                                      | $h_{FE(2)}$   | $V_{CE}=2\text{V}, I_C=500\text{mA}$  | 340 |     | 950  |               |
|                                      | $h_{FE(3)}$   | $V_{CE}=2\text{V}, I_C=2000\text{mA}$ | 150 |     |      |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=3000\text{mA}, I_B=100\text{mA}$ |     |     | 0.35 | V             |

### CLASSIFICATION OF $h_{FE(2)}$

| Rank  | R       | T       |
|-------|---------|---------|
| Range | 340-600 | 560-950 |