



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## TO-92MOD Plastic-Encapsulate Transistors

### 2SC2703 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$P_{CM}$ : 0.9 W ( $T_{amb}=25^{\circ}C$ )

Collector current

$I_{CM}$ : 1 A

Collector-base voltage

$V_{(BR)CBO}$ : 30 V

Operating and storage junction temperature range

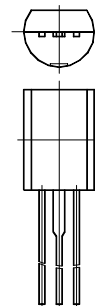
$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$

#### TO-92MOD

1. EMITTER

2. COLLECTOR

3. BASE



123

#### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}C$ unless otherwise specified)

| Parameter                            | Symbol        | Test conditions             | MIN | TYP | MAX | UNIT    |
|--------------------------------------|---------------|-----------------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=1mA, I_E=0$            | 30  |     |     | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$           | 30  |     |     | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=1mA, I_C=0$            | 5   |     |     | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=30V, I_E=0$         |     |     | 0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$          |     |     | 0.1 | $\mu A$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE}=2V, I_C=100mA$      | 100 |     | 320 |         |
|                                      | $h_{FE(2)}$   | $V_{CE}=2V, I_C=800mA$      | 40  |     |     |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=800mA, I_B=80mA$       |     |     | 0.5 | V       |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE}=2V, I_C=800mA$      |     |     | 1.5 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=2V, I_C=100mA$      |     | 150 |     | MHz     |
| Collector output capacitance         | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$ |     | 13  |     | pF      |

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

| Rank    | O       | Y       |
|---------|---------|---------|
| Range   | 100-200 | 160-320 |
| Marking |         |         |