

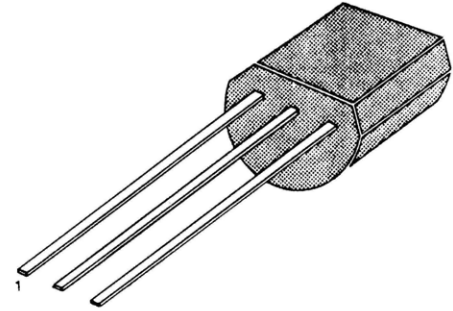
### LOW FREQUENCY AMPLIFIER

- Collection Dissipation :  $P_C(\text{max}) = 400\text{mW}$
- Collector-Emitter Voltage :  $V_{CEO} = -50\text{V}$

### Absolute Maximum Ratings (TA=25°C)

| Characteristic            | Symbol    | Rating   | Unit |
|---------------------------|-----------|----------|------|
| Collector-Base Voltage    | $V_{CBO}$ | -50      | V    |
| Collector-Emitter Voltage | $V_{CEO}$ | -50      | V    |
| Collector Current         | $I_C$     | -150     | mA   |
| Collector Dissipation     | $P_C$     | 400      | mW   |
| Junction Temperature      | $T_J$     | 150      | °C   |
| Storage Temperature       | $T_{STG}$ | -55~+150 | °C   |

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1. Emitter 2. Collector 3. Base

### Electrical Characteristics (TA=25°C)

| Characteristic                       | Symbol               | Test Conditions   | Min | Max   | Unit          |
|--------------------------------------|----------------------|---|-----|-------|---------------|
| Collector-Base Breakdown Voltage     | $BV_{CBO}$           | $I_C = -100\mu\text{A}, I_E = 0$                                | -50 |       | V             |
| Collector-Emitter Breakdown Voltage  | $BV_{CEO}$           | $I_C = -0.1\text{mA}, I_B = 0$                                  | -50 |       | V             |
| Collector Cut-off Current            | $I_{CBO}$            | $V_{CB} = -50\text{V}, I_E = 0$                                 |     | -0.1  | $\mu\text{A}$ |
| Emitter Cut-off Current              | $I_{EBO}$            | $V_{EB} = -5\text{V}, I_C = 0$                                  |     | -0.1  | $\mu\text{A}$ |
| DC Current Gain                      | $h_{FE}$             | $V_{CE} = -6\text{V}, I_C = -2\text{mA}$                        | 70  | 400   |               |
| Collector-Emitter Saturation Voltage | $V_{CE(\text{sat})}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$                       |     | -0.3  | V             |
| Base-Emitter Saturation Voltage      | $V_{BE(\text{sat})}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$                       |     | -1.1  | V             |
| Base-Emitter Voltage                 | $V_{BE}$             | $I_E = -310\text{mA}$   |     | -1.45 | V             |
| Transition Frequency                 | $f_T$                | $V_{CE} = -10\text{V}, I_C = -1\text{mA}$<br>$f = 30\text{MHz}$ | 80  |       | MHz           |

### $h_{FE}$ CLASSIFICATION

| Classification | O      | Y       | GR      |
|----------------|--------|---------|---------|
| $h_{FE}$       | 70-140 | 120-240 | 200-400 |