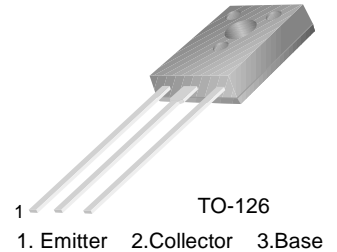


■■ APPLICATION: Audio Frequency Power Amplifier

■■ MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

| PARAMETER | SYMBOL | RATING | UNIT |
|---------------------------|-----------|----------|------------------|
| Collector-base voltage | V_{CBO} | -40 | V |
| Collector-emitter voltage | V_{CEO} | -30 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -3 | A |
| Power Dissipation | P_C | 1 | W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55~150 | $^\circ\text{C}$ |


■■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|--------------------------------------|---------------|------|------|------|---------------|------------------------------------|
| Common Emitter DC Current Gain | h_{FE} | 60 | | 400 | | $V_{CE} = -2V, I_C = -1A$ |
| Collector Cut-off Current | I_{CBO} | | | -1 | μA | $V_{CB} = -30V, I_E = 0$ |
| Emitter Cut-off Current | I_{EBO} | | | -1 | μA | $V_{EB} = -3V, I_C = 0$ |
| Collector-Base Breakdown Voltage | BV_{CBO} | -40 | | | V | $I_C = -1mA, I_E = 0$ |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | -30 | | | V | $I_C = -10mA, I_B = 0$ |
| Emitter-Base Breakdown Voltage | BV_{EBO} | -5 | | | V | $I_E = -1mA, I_C = 0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | -0.3 | -0.5 | V | $I_C = -2A, I_B = -0.2A$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | -1.0 | -2.0 | V | $I_C = -2A, I_B = -0.2A$ |
| Gain bandwidth product | f_T | | 80 | | MHZ | $I_C = -100mA, V_{CE} = -5V$ |
| Feed Back Capacitance | C_{ob} | | 55 | | PF | $V_{CB} = -10V, I_E = 0, f = 1MHz$ |

■■ hFE Classification And Marking

| Classification | R | Q | P | E |
|----------------|--------|---------|---------|---------|
| h_{FE} | 60~120 | 100~200 | 160~320 | 200~400 |