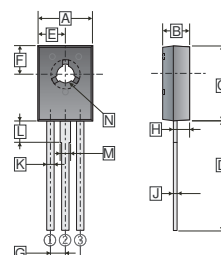
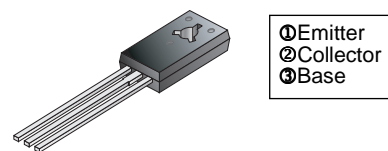


RoHS Compliant Product  
A suffix of "-C" specifies halogen and lead free

## FEATURES

- High Current
- Amplifier and Switching Applications

## TO-126



| REF. | Millimeter |       | REF. | Millimeter |      |
|------|------------|-------|------|------------|------|
|      | Min.       | Max.  |      | Min.       | Max. |
| A    | 7.40       | 7.80  | H    | 1.10       | 1.50 |
| B    | 2.50       | 2.90  | J    | 0.45       | 0.60 |
| C    | 10.60      | 11.00 | K    | 0.66       | 0.86 |
| D    | 15.30      | 15.70 | L    | 2.10       | 2.30 |
| E    | 3.70       | 3.90  | M    | 1.17       | 1.37 |
| F    | 3.90       | 4.10  | N    | 3.00       | 3.20 |
| G    | 2.29 TYP.  |       |      |            |      |

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                     | Symbol                            | Ratings        | Unit   |
|-------------------------------|-----------------------------------|----------------|--------|
| Collector - Base Voltage      | V <sub>CBO</sub>                  | -30            | V      |
| Collector - Emitter Voltage   | V <sub>CEO</sub>                  | -30            | V      |
| Emitter - Base Voltage        | V <sub>EBO</sub>                  | -6             | V      |
| Collector Current -Continuous | I <sub>C</sub>                    | -5             | A      |
| Collector Power Dissipation   | P <sub>C</sub>                    | 1              | W      |
| Maximum Junction to Ambient   | R <sub>θJA</sub>                  | 125            | °C / W |
| Junction, Storage Temperature | T <sub>J</sub> , T <sub>STG</sub> | 150, -55 ~ 150 | °C     |

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                            | Symbol                | Min. | Typ. | Max.  | Unit | Test Conditions                                    |
|--------------------------------------|-----------------------|------|------|-------|------|--|
| Collector-Base Breakdown Voltage     | V <sub>(BR)CBO</sub>  | -30  | -    | -     | V    | I <sub>C</sub> = -0.1mA, I <sub>E</sub> =0         |
| Collector-Emitter Breakdown voltage  | V <sub>(BR)CEO</sub>  | -30  | -    | -     | V    | I <sub>C</sub> = -1mA, I <sub>B</sub> =0           |
| Emitter-Base Breakdown Voltage       | V <sub>(BR)EBO</sub>  | -6   | -    | -     | V    | I <sub>C</sub> =0, I <sub>E</sub> = -0.1mA         |
| Collector Cut-Off Current            | I <sub>CBO</sub>      | -    | -    | -0.1  | µA   | V <sub>CB</sub> = -30V, I <sub>E</sub> = 0         |
| Emitter Cut-Off Current              | I <sub>EBO</sub>      | -    | -    | -0.1  | µA   | V <sub>EB</sub> = -6V, I <sub>C</sub> = 0          |
| DC Current Gain                      | h <sub>FE(1)</sub>    | 150  | -    | 600   |      | V <sub>CE</sub> = -2V, I <sub>C</sub> = -1A        |
|                                      | h <sub>FE(2)</sub>    | 50   | -    | -     |      | V <sub>CE</sub> = -2V, I <sub>C</sub> = -4A        |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)1</sub> | -    | -    | -0.15 | V    | I <sub>C</sub> = -1A, I <sub>B</sub> = -50mA       |
|                                      | V <sub>CE(sat)2</sub> | -    | -    | -0.25 |      | I <sub>C</sub> = -2A, I <sub>B</sub> = -100mA      |
|                                      | V <sub>CE(sat)3</sub> | -    | -    | -0.5  |      | I <sub>C</sub> = -4A, I <sub>B</sub> = -200mA      |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat)</sub>  | -    | -    | -1.5  | V    | I <sub>C</sub> = -1A, I <sub>B</sub> = -100mA      |
| Transition frequency                 | f <sub>T</sub>        | -    | 95   | -     | MHz  | V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA     |
| Collector output capacitance         | C <sub>ob</sub>       | -    | 100  | -     | pF   | V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f=1MHz |