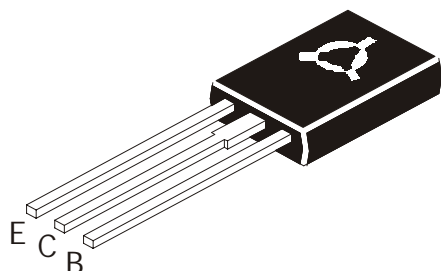


**NPN PLASTIC POWER TRANSISTORS**

**BF 469, BF471**



**TO126  
Plastic Package**

**Complementary BF470, 472**

**Video Applications in TV**

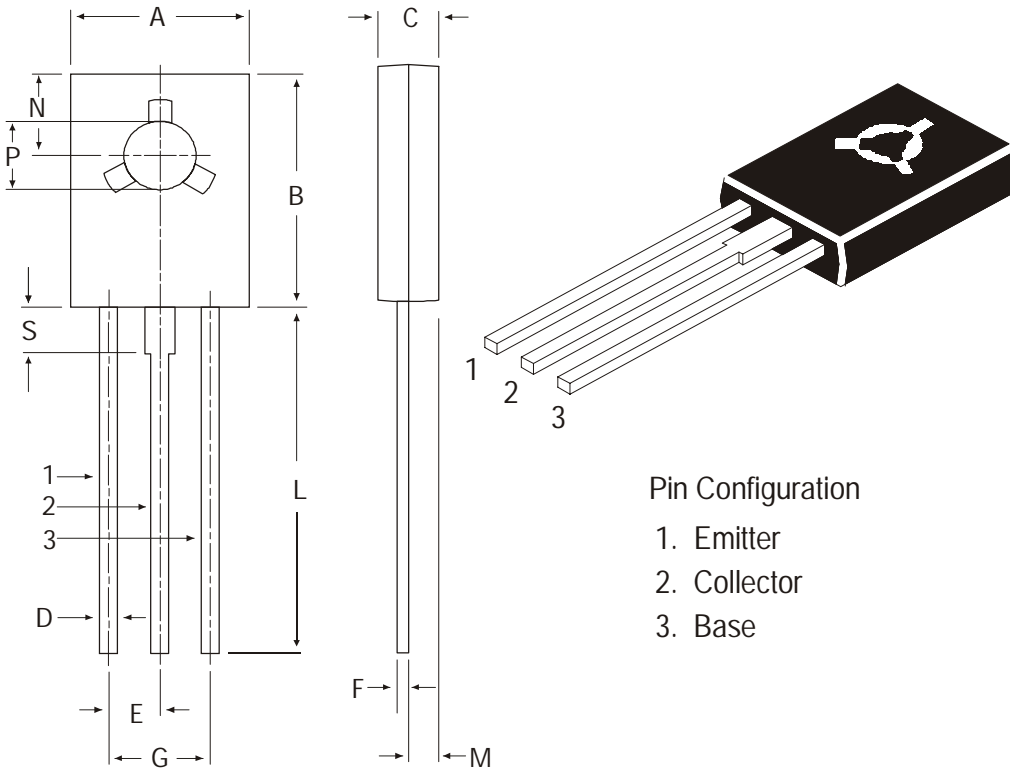
**ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)**

| DESCRIPTION   | SYMBOL        | 469         | 471  | UNITS |
|---|---------------|-------------|------|-------|
| Collector Base Voltage(open emitter)                | $V_{CBO}$     | >250        | >300 | V     |
| Collector Emitter Voltage (open base)               | $V_{CEO}$     | >250        |      | V     |
| Collector Emitter Voltage ( $R_{BE} = 2.7K\Omega$ ) | $V_{CER}$     |             | <300 | V     |
| Emitter Base Voltage(open collector)                | $V_{EBO}$     | >5.0        |      | V     |
| Collector Current                                   | $I_C$         | <30         |      | mA    |
| Collector current (Peak Value)                      | $I_{CM}$      | <100        |      | mA    |
| Total Power Dissipation @ $T_c=110^\circ C$         | $P_{tot}$     | <2          |      | W     |
| Junction Temperature                                | $T_j$         | <150        |      | °C    |
| Storage Temperature                                 | $T_{stg}$     | -65 to +150 |      | °C    |
| <b>THERMAL RESISTANCE</b>                           |               |             |      |       |
| From Junction to case                               | $R_{th(j-c)}$ |             | 20   | K/W   |
| From Junction to ambient                            | $R_{th(j-a)}$ |             | 100  | K/W   |

**ELECTRICAL CHARACTERISTICS (Ta=25°C Unless Otherwise Specified)**

| DESCRIPTION                          | SYMBOL  | 469                                 | 471  | UNITS   |
|--------------------------------------|---|-------------------------------------|------|---------|
| <b>Collector-Cut off Current</b>     | $I_{CBO}$ $I_E = 0, V_{CB} = 200V$                          | <100                                |      | nA      |
|                                      | $I_{CER}$ $R_{BE}=2.7k\Omega, V_{CE}=250V$                  |                                     | <50  | nA      |
|                                      | $I_{CER}$ $R_{BE}=2.7k\Omega, V_{CE}=200V, T_j=150^\circ C$ |                                     | <10  | $\mu A$ |
|                                      | $I_{EBO}$ $V_{EB} = 5V, I_C = 0$                            |                                     | <10  | nA      |
| <b>Breakdown Voltages</b>            | $V_{CEO}$ $I_C = 1mA, I_B = 0$                              | >250                                |      | V       |
|                                      | $V_{CER}$ $I_C = 1\mu A, R_{BE} = 2.7K\Omega$               |                                     | >300 | V       |
|                                      | $V_{CBO}$ $I_C = 10\mu A, I_E = 0$                          | >250                                | >300 | V       |
|                                      | $V_{EBO}$ $I_C = 0, I_E = 10\mu A$                          |                                     | >5.0 | V       |
|                                      | <b>DC Current Gain</b>                                      | $h_{FE}$ $I_C = 25mA, V_{CE} = 20V$ | >50  |         |
| <b>Transition Frequency</b>          | $f_T$ $I_C = 10mA, V_{CE} = 10V$                            | >60                                 |      | MHz     |
| <b>Feedback Capacitance f=0.5MHz</b> | $C_{re}$ $I_C = 0, V_{CE} = 30V$                            | >1.8                                |      | pF      |

TO-126 (SOT-32) Plastic Package



| DIM | MIN       | MAX  |
|-----|-----------|------|
| A   | 7.4       | 7.8  |
| B   | 10.5      | 10.8 |
| C   | 2.4       | 2.7  |
| D   | 0.7       | 0.9  |
| E   | 2.25 TYP. |      |
| F   | 0.49      | 0.75 |
| G   | 4.5 TYP.  |      |
| L   | 15.7 TYP. |      |
| M   | 1.27 TYP. |      |
| N   | 3.75 TYP. |      |
| P   | 3.0       | 3.2  |
| S   | 2.5 TYP.  |      |

All dimensions in mm.

Packing Detail

| PACKAGE     | STANDARD PACK   |                | INNER CARTON BOX  |     | OUTER CARTON BOX  |     |        |
|-------------|-----------------|----------------|-------------------|-----|-------------------|-----|--------|
|             | Details         | Net Weight/Qty | Size              | Qty | Size              | Qty | Gr Wt  |
| TO-126 Bulk | 500 pcs/polybag | 340 gm/500 pcs | 3" x 7.5" x 7.5"  | 2K  | 17" x 15" x 13.5" | 32K | 31 kgs |
| TO-126 Tube | 50 pcs/tube     | 73 gm/50 pcs   | 3" x 3.7" x 21.5" | 1K  | 19" x 19" x 19"   | 10K | 15 kgs |

### **Disclaimer**

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