

## isc Silicon NPN Power Transistor

2SC2611

## DESCRIPTION

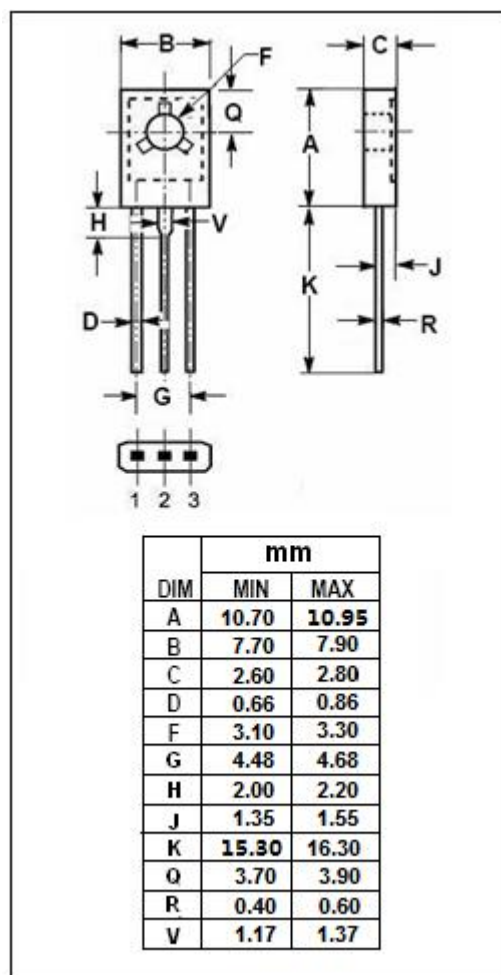
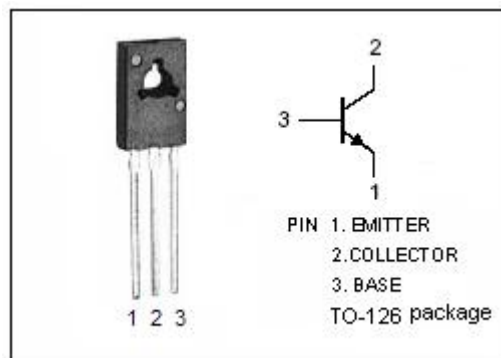
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 300V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for use in high frequency high voltage amplifier and TV video output applications.

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

| SYMBOL    | PARAMETER                                               | VALUE   | UNIT             |
|-----------|---------------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 300     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 300     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 5       | V                |
| $I_C$     | Collector Current-Continuous                            | 0.1     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_a=25^\circ\text{C}$ | 1.25    | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



**isc Silicon NPN Power Transistor****2SC2611****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                                                   | MIN | TYP. | MAX | UNIT          |
|---------------|--------------------------------------|--------------------------------------------------------------|-----|------|-----|---------------|
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage     | $I_C = 10\ \mu\text{A}$ ; $I_E = 0$                          | 300 |      |     | V             |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage  | $I_C = 1\text{mA}$ ; $R_{BE} = \infty$                       | 300 |      |     | V             |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage       | $I_E = 10\ \mu\text{A}$ ; $I_C = 0$                          | 5   |      |     | V             |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 20\text{mA}$ ; $I_B = 2\text{mA}$                     |     |      | 1.5 | V             |
| $I_{CEO}$     | Collector Cutoff Current             | $V_{CE} = 250\text{V}$ ; $R_{BE} = \infty$                   |     |      | 1   | $\mu\text{A}$ |
| $h_{FE}$      | DC Current Gain                      | $I_C = 20\text{mA}$ ; $V_{CE} = 20\text{V}$                  | 30  |      | 200 |               |
| $f_T$         | Current-Gain—Bandwidth Product       | $I_C = 20\text{mA}$ ; $V_{CE} = 20\text{V}$                  |     | 80   |     | MHz           |
| $C_{OB}$      | Output Capacitance                   | $I_E = 0$ ; $V_{CB} = 20\text{V}$ , $f_{test} = 1\text{MHz}$ |     |      | 4   | pF            |

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