

## isc Silicon NPN Power Transistor

2SC3063

## DESCRIPTION

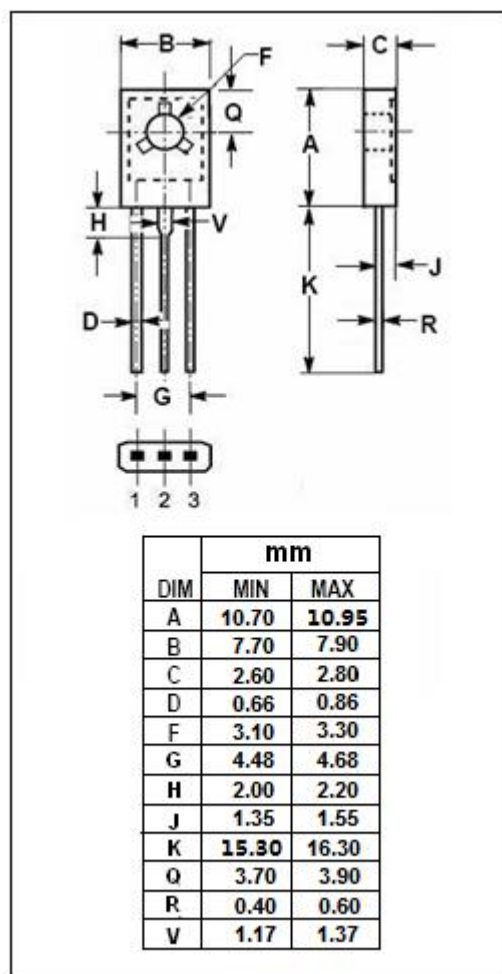
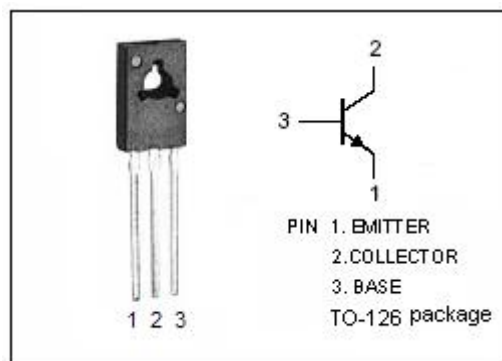
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 300V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for TV video output amplification.

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                                    | 7       | V                |
| $I_C$     | Collector Current-Continuous                            | 0.1     | A                |
| $I_{CM}$  | Collector Current-Peak                                  | 0.2     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_a=25^\circ\text{C}$ | 1.2     | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



**isc Silicon NPN Power Transistor****2SC3063****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

| SYMBOL               | PARAMETER                            | CONDITIONS                                                          | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---------------------------------------------------------------------|-----|------|-----|------|
| V <sub>(BR)CBO</sub> | Collector-Base Breakdown Voltage     | I <sub>C</sub> = 10 μA ; I <sub>E</sub> = 0                         | 300 |      |     | V    |
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 0.1mA ; I <sub>B</sub> = 0                         | 300 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 10 μA ; I <sub>C</sub> = 0                         | 7   |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 30mA; I <sub>B</sub> = 3mA                         |     |      | 1.5 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = 30mA; V <sub>CE</sub> = 10V                        |     |      | 1.2 | V    |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = 5mA; V <sub>CE</sub> = 50V                         | 50  |      | 250 |      |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>E</sub> = -20mA; V <sub>CE</sub> = 30V                       | 70  |      |     | MHz  |
| C <sub>OB</sub>      | Output Capacitance                   | I <sub>E</sub> = 0; V <sub>CB</sub> = 30V, f <sub>test</sub> = 1MHz |     | 2.4  |     | pF   |

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