

## isc Silicon NPN Power Transistor

2SC3677

## DESCRIPTION

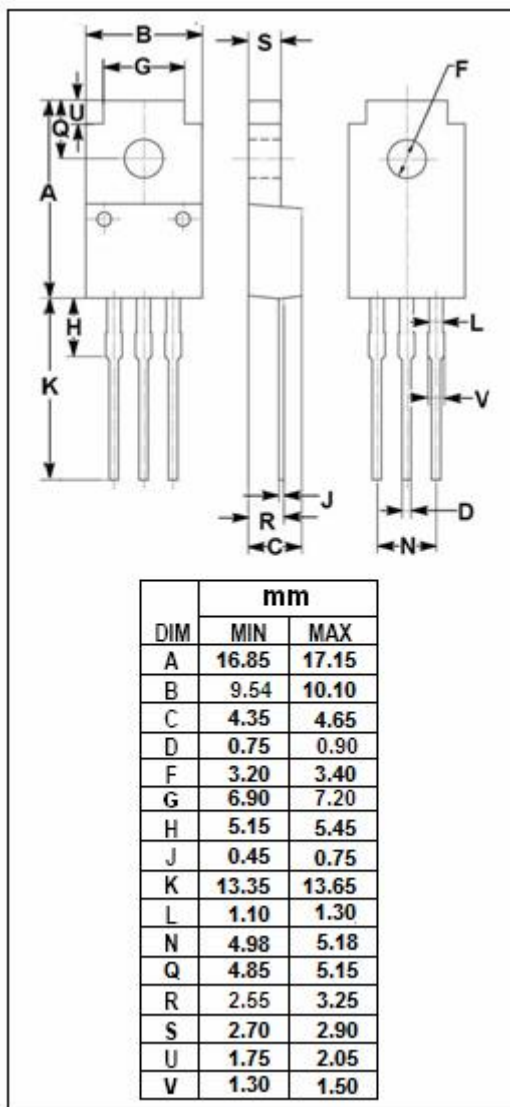
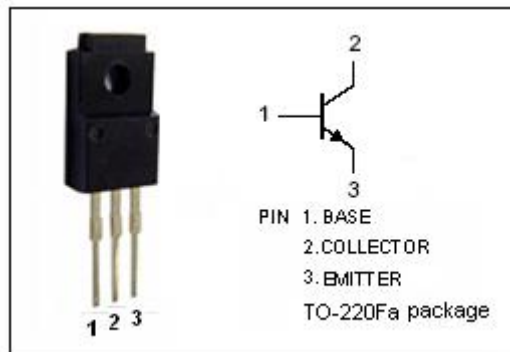
- Low Collector Saturation Voltage
- High breakdown voltage
- Good Linearity of  $h_{FE}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- High voltage amplifier
- High-voltage switching applications
- Dynamis focus applications

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

| SYMBOL    | PARAMETER                                                 | VALUE   | UNIT               |
|-----------|-----------------------------------------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-Base Voltage                                    | 60      | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage                                 | 60      | V                  |
| $V_{EBO}$ | Emitter-Base Voltage                                      | 5       | V                  |
| $I_C$     | Collector Current-Continuous                              | 3       | A                  |
| $I_{CM}$  | Collector Current-Pulse                                   | 6       | A                  |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^{\circ}\text{C}$ | 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****2SC3677****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

| SYMBOL               | PARAMETER                            | CONDITIONS                                  | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---------------------------------------------|-----|------|-----|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 10mA ; I <sub>B</sub> = 0  | 60  |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> =2A; I <sub>B</sub> =0.2A    |     |      | 1.5 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> =2A; I <sub>B</sub> = 0.2A   |     |      | 2.0 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 60V; I <sub>E</sub> = 0   |     |      | 10  | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> =5V; I <sub>C</sub> = 0     |     |      | 10  | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> =0.5A ; V <sub>CE</sub> = 5V | 800 |      |     |      |

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