

**isc Silicon NPN Power Transistor**
**FJP3305**
**DESCRIPTION**

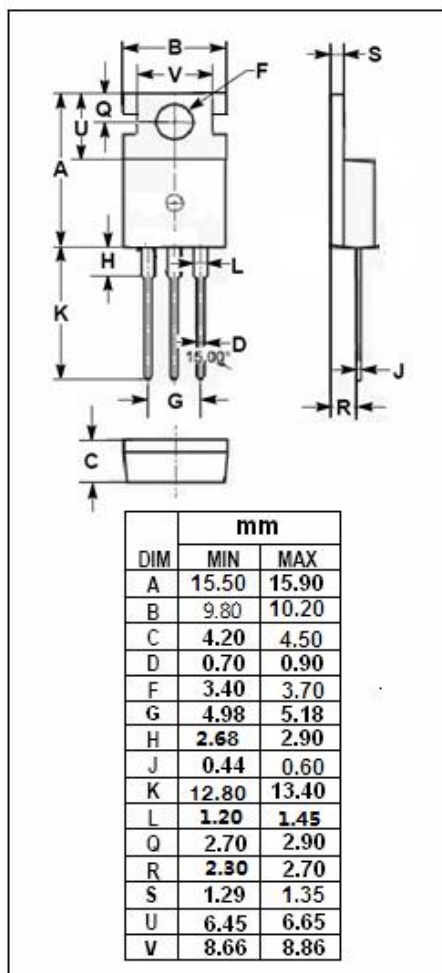
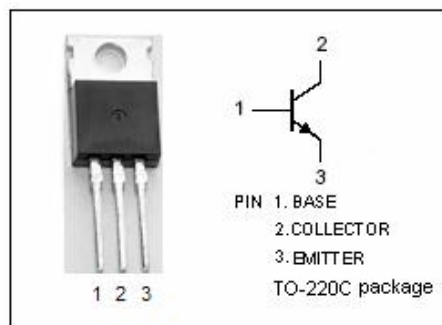
- Large current capacitance
- High Power Dissipation
- Low saturation voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- High speed switching applications
- Suitable for Electronic Ballast and Switching Regulator

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

| SYMBOL           | PARAMETER   | VALUE   | UNIT |
|------------------|---|---------|------|
| V <sub>CBO</sub> | Collector-Base Voltage                                | 700     | V    |
| V <sub>CEO</sub> | Collector-Emitter Voltage                             | 400     | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage                                  | 9       | V    |
| I <sub>C</sub>   | Collector Current-Continuous                          | 4       | A    |
| I <sub>CM</sub>  | Collector Current-Pulse                               | 8       | A    |
| I <sub>B</sub>   | Base Current-Continuous                               | 2       | A    |
| P <sub>C</sub>   | Collector Power Dissipation<br>@ T <sub>c</sub> =25°C | 75      | W    |
| T <sub>J</sub>   | Junction Temperature                                  | 150     | °C   |
| T <sub>stg</sub> | Storage Temperature Range                             | -65~150 | °C   |



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**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> = 500μA, I <sub>E</sub> = 0 | 700 |      |     | V    |
| V <sub>(BR)CEO</sub>   | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 5mA, I <sub>B</sub> = 0   | 400 |      |     | V    |
| V <sub>(BR)EBO</sub>   | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 500μA, I <sub>C</sub> = 0 | 9   |      |     | V    |
| V <sub>CE(sat)-1</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 1A; I <sub>B</sub> = 0.2A |     |      | 0.5 | V    |
| V <sub>CE(sat)-2</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 2A; I <sub>B</sub> = 0.5A |     |      | 0.6 | V    |
| V <sub>CE(sat)-3</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 4A; I <sub>B</sub> = 1A   |     |      | 1   | V    |
| V <sub>BE(sat)-1</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = 1A; I <sub>B</sub> = 0.2A |     |      | 1.2 | V    |
| V <sub>BE(sat)-2</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = 2A; I <sub>B</sub> = 0.5A |     |      | 1.6 | V    |
| I <sub>CBO</sub>       | Collector Cutoff Current             | V <sub>CB</sub> =700V; I <sub>E</sub> = 0  |     |      | 1   | μA   |
| I <sub>EBO</sub>       | Emitter Cutoff Current               | V <sub>EB</sub> = 9V; I <sub>C</sub> = 0   |     |      | 1   | μA   |
| h <sub>FE-1</sub>      | DC Current Gain                      | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V  | 19  |      | 35  |      |
| h <sub>FE-2</sub>      | DC Current Gain                      | I <sub>C</sub> = 2A; V <sub>CE</sub> = 5V  | 8   |      | 40  |      |

**◆ h<sub>FE</sub> Classifications**

| O     | Y     |
|-------|-------|
| 19-28 | 26-35 |

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