

# isc N-Channel MOSFET Transistor

## **IRFP351**

### **FEATURES**

- Drain Current –I<sub>D</sub>= 15A@ T<sub>C</sub>=25 °C
- · Drain Source Voltage-
  - : V<sub>DSS</sub>= 350V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)} = 0.3 \Omega (Max)$
- · Fast Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



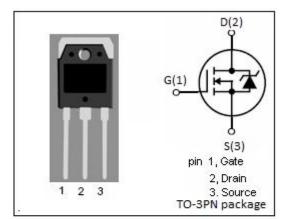
• Designed for use in switch mode power supplies and general purpose applications.

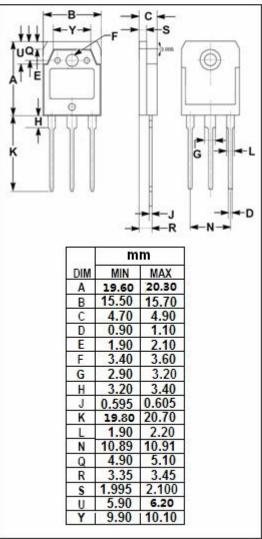
### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER                              | VALUE   | UNIT       |
|------------------|--|---------|------------|
| V <sub>DSS</sub> | Drain-Source Voltage                   | 350     | V          |
| V <sub>GS</sub>  | Gate-Source Voltage-Continuous         | ±20     | V          |
| I <sub>D</sub>   | Drain Current-Continuous               | 15      | А          |
| I <sub>DM</sub>  | Drain Current-Single Pluse             | 60      | Α          |
| P <sub>D</sub>   | Total Dissipation @T <sub>C</sub> =25℃ | 150     | W          |
| TJ               | Max. Operating Junction Temperature    | -55~150 | $^{\circ}$ |
| T <sub>stg</sub> | Storage Temperature                    | -55~150 | $^{\circ}$ |

#### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                                      | MAX | UNIT |
|---------------------|--|-----|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case           | 0.7 | °C/W |
| R <sub>th j-a</sub> | th j-a Thermal Resistance, Junction to Ambient |     | °C/W |







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

| SYMBOL               | PARAMETER                       | CONDITIONS                                   | MIN | MAX  | UNIT |
|----------------------|---------------------------------|--|-----|------|------|
| V <sub>(BR)DSS</sub> | Drain-Source Breakdown Voltage  | V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA | 350 |      | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | $V_{DS}$ = $V_{GS}$ ; $I_D$ = 0.25mA         | 2   | 4    | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> = 8A   |     | 0.3  | Ω    |
| Igss                 | Gate-Body Leakage Current       | V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0   |     | ±100 | nA   |
| I <sub>DSS</sub>     | Zero Gate Voltage Drain Current | V <sub>DS</sub> = 350V; V <sub>GS</sub> = 0  |     | 250  | μА   |
| V <sub>SD</sub>      | Forward On-Voltage              | I <sub>S</sub> = 15A; V <sub>GS</sub> = 0    |     | 1.6  | V    |

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