

isc N-Channel MOSFET Transistor

IRFP350FI

FEATURES

- Drain Current  $-I_D = 10A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 400V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.3 \Omega (\text{Max})$
- Fast Switching

DESCRIPTION

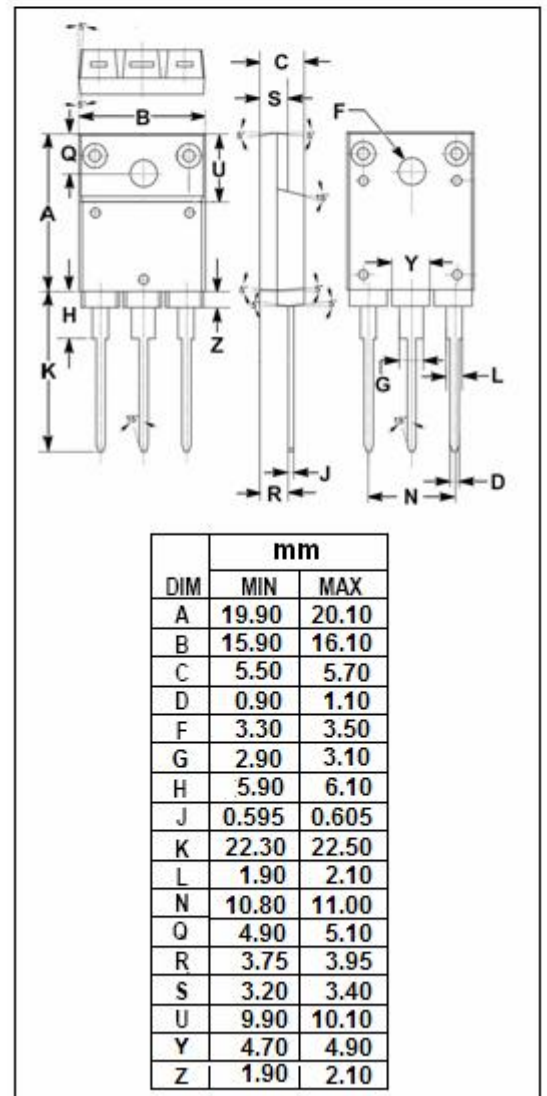
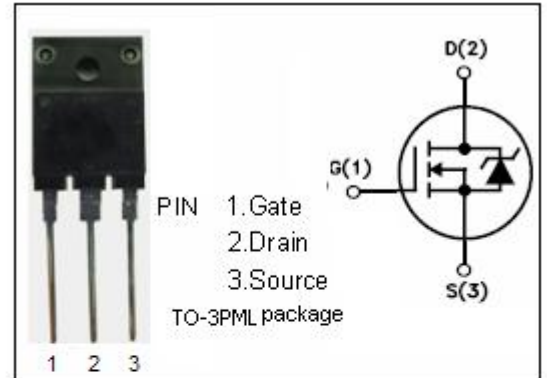
- Designed for use in switch mode power supplies and general purpose applications.

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

| SYMBOL    | PARAMETER                              | VALUE    | UNIT       |
|-----------|--|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage                   | 400      | V          |
| $V_{GS}$  | Gate-Source Voltage-Continuous         | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous               | 10       | A          |
| $I_{DM}$  | Drain Current-Single Pluse             | 40       | A          |
| $P_D$     | Total Dissipation @ $T_C = 25^\circ C$ | 70       | W          |
| $T_J$     | Max. Operating Junction Temperature    | -55~150  | $^\circ C$ |
| $T_{stg}$ | Storage Temperature                    | -55~150  | $^\circ C$ |

THERMAL CHARACTERISTICS

| SYMBOL       | PARAMETER                               | MAX  | UNIT         |
|--------------|---|------|--------------|
| $R_{th j-c}$ | Thermal Resistance, Junction to Case    | 0.83 | $^\circ C/W$ |
| $R_{th j-a}$ | Thermal Resistance, Junction to Ambient | 80   | $^\circ C/W$ |



**isc N-Channel MOSFET Transistor****IRFP350FI****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                       | CONDITIONS  | MIN | MAX         | UNIT          |
|---------------|---------------------------------|---|-----|-------------|---------------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage  | $V_{GS}=0; I_D=0.25\text{mA}$   | 400 |             | V             |
| $V_{GS(th)}$  | Gate Threshold Voltage          | $V_{DS}=V_{GS}; I_D=0.25\text{mA}$  | 2   | 4           | V             |
| $R_{DS(on)}$  | Drain-Source On-Resistance      | $V_{GS}=10\text{V}; I_D=8\text{A}$  |     | 0.3         | $\Omega$      |
| $I_{GSS}$     | Gate-Body Leakage Current       | $V_{GS}=\pm 20\text{V}; V_{DS}=0$   |     | $\pm 100$   | nA            |
| $I_{DSS}$     | Zero Gate Voltage Drain Current | $V_{DS}=400\text{V}; V_{GS}=0$<br>$V_{DS}=320\text{V}; V_{GS}=0; T_j=150^\circ\text{C}$ |     | 250<br>1000 | $\mu\text{A}$ |
| $V_{SD}$      | Forward On-Voltage              | $I_S=10\text{A}; V_{GS}=0$  |     | 1.6         | V             |