

isc N-Channel Mosfet Transistor

IRF614

• FEATURES

- Low $R_{DS(on)}$
- V_{GS} Rated at $\pm 20V$
- Silicon Gate for Fast Switching Speed
- Rugged
- Low Drive Requirements

• DESCRIPTION

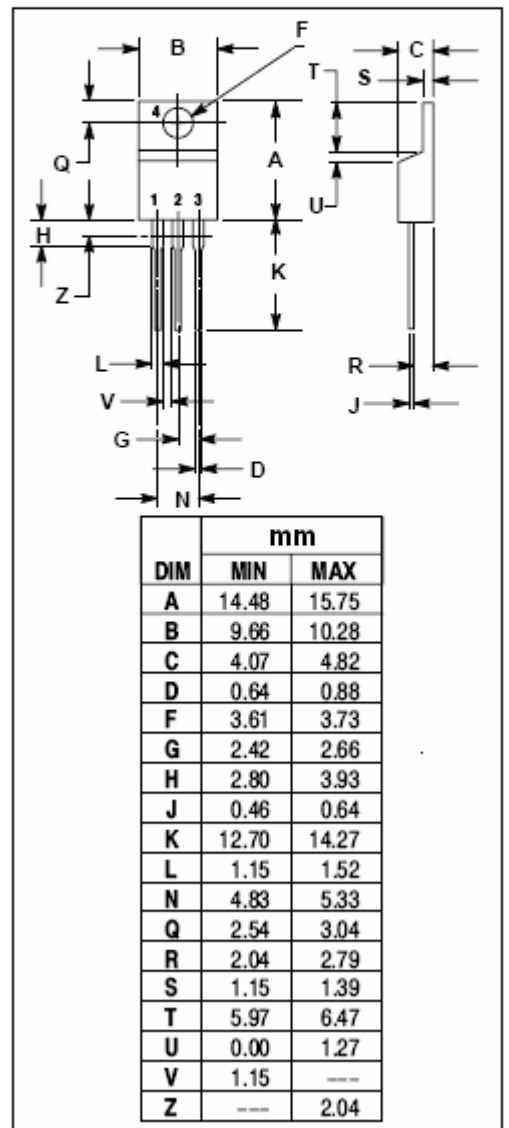
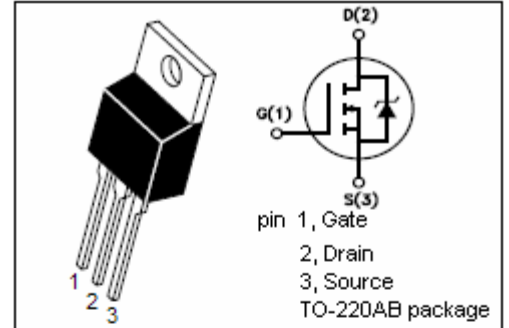
- Designed for high speed applications, such as switching power supplies , AC and DC motor controls, relay and solenoid drivers and other pulse.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--------------------------------------|----------|------------|
| V_{DSS} | Drain-Source Voltage | 250 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 20 | V |
| I_D | Drain Current-Continuous | 2 | A |
| I_{DM} | Drain Current-Single Plused | 8 | A |
| P_D | Total Dissipation @ $T_C=25^\circ C$ | 20 | 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 | 6.4 | $^\circ C/W$ |
| $R_{th j-a}$ | Thermal Resistance,Junction to Ambient | 62.5 | $^\circ C/W$ |



isc N-Channel Mosfet Transistor**IRF614****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------|---------------------------------|--------------------------------------|-----|-----------|---------------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}=0; I_D=0.25\text{mA}$ | 250 | | 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 | $V_{GS}=10\text{V}; I_D=1.5\text{A}$ | | 2 | Ω |
| I_{GSS} | Gate-Body Leakage Current | $V_{GS}=\pm 20\text{V}; V_{DS}=0$ | | ± 500 | nA |
| I_{DSS} | Zero Gate Voltage Drain Current | $V_{DS}=250\text{V}; V_{GS}=0$ | | 250 | μA |
| V_{SD} | Forward On-Voltage | $I_S=2\text{A}; V_{GS}=0$ | | 2.0 | V |