

# isc N-Channel MOSFET Transistor

FKI07076

#### **FEATURES**

- Drain Current –I<sub>D</sub>=55A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>=75V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)}$  =6.9m  $\Omega$  (Max)
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



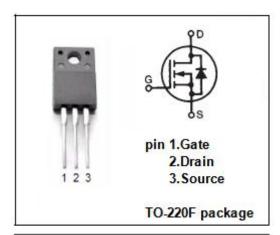
• Designed for use in switch mode power supplies and general purpose applications.

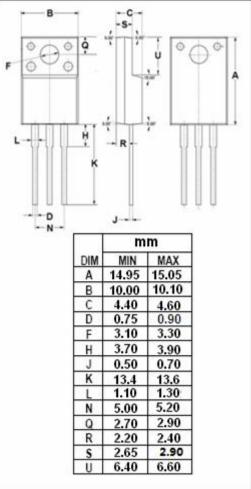
### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER                                 | VALUE                                 | UNIT       |
|------------------|---|---------------------------------------|------------|
| V <sub>DSS</sub> | Drain-Source Voltage                      | 75                                    | V          |
| $V_{GS}$         | Gate-Source Voltage-Continuous            | ±20                                   | ٧          |
| I <sub>D</sub>   | Drain Current-Continuous 55               |                                       | Α          |
| $P_D$            | Total Dissipation @T <sub>C</sub> =25℃ 42 |                                       | W          |
| TJ               | Max. Operating Junction Temperature       | x. Operating Junction Temperature 150 |            |
| 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 | 3.0 | °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> = 0.1mA               | 75  |      | V          |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =1.5mA | 1   | 2.5  | V          |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> =44A                |     | 6.9  | mΩ         |
| I <sub>GSS</sub>     | 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> =75V; V <sub>GS</sub> = 0                 |     | 100  | μ <b>А</b> |
| V <sub>SD</sub>      | Forward On-Voltage              | I <sub>S</sub> =44A; V <sub>GS</sub> = 0                  |     | 1.5  | V          |



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