

# isc N-Channel MOSFET Transistor

## FKP300A

### **FEATURES**

- Drain Current –I<sub>D</sub>=30A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>=300V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)} = 65m \Omega (Max)$
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### **DESCRIPTION**

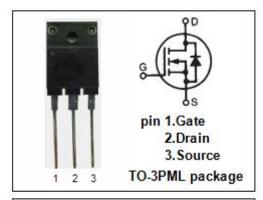
• Designed for use in switch mode power supplies and general purpose applications.

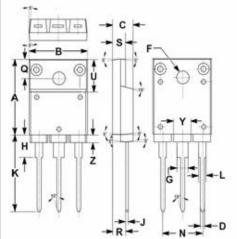
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER                               | VALUE | UNIT          |  |
|------------------|-----------------------------------------|-------|---------------|--|
| V <sub>DSS</sub> | Drain-Source Voltage                    | 300   | V             |  |
| V <sub>GS</sub>  | Gate-Source Voltage-Continuous          | ±30   | V             |  |
| I <sub>D</sub>   | Drain Current-Continuous                | 30    | Α             |  |
| P <sub>D</sub>   | Total Dissipation @T <sub>C</sub> =25℃  | 85    | 85 W          |  |
| TJ               | Max. Operating Junction Temperature 150 |       | $^{\circ}$    |  |
| T <sub>stg</sub> | Storage Temperature -55~150             |       | ${\mathbb C}$ |  |

### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                            | MAX  | UNIT |
|---------------------|--------------------------------------|------|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case | 1.47 | °C/W |





|     | mm    |       |  |
|-----|-------|-------|--|
| DIM | MIN   | MAX   |  |
| Α   | 19.90 | 20.10 |  |
| В   | 15.75 | 16.10 |  |
| C   | 5.50  | 5.70  |  |
| D   | 0.90  | 1.10  |  |
| F   | 3.30  | 3.50  |  |
| G   | 2.90  | 3.20  |  |
| Н   | 5.90  | 6.10  |  |
| J   | 0.595 | 0.70  |  |
| K   | 21.10 | 22.50 |  |
| L   | 1.90  | 2.25  |  |
| N   | 10.80 | 11.00 |  |
| Q   | 4.90  | 5.10  |  |
| R   | 3.75  | 3.95  |  |
| S   | 3.20  | 3.60  |  |
| U   | 9.90  | 10.10 |  |
| Y   | 4.20  | 4.90  |  |
| Z   | 1.90  | 2.10  |  |



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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 | 300 |      | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | V <sub>DS</sub> = 10V; I <sub>D</sub> =1mA  | 3   | 4.5  | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> =15A  |     | 65   | mΩ   |
| I <sub>GSS</sub>     | Gate-Body Leakage Current       | V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0  |     | ±100 | nA   |
| I <sub>DSS</sub>     | Zero Gate Voltage Drain Current | V <sub>DS</sub> =300V; V <sub>GS</sub> = 0  |     | 100  | μА   |
| V <sub>SD</sub>      | Forward On-Voltage              | I <sub>S</sub> =30A; V <sub>GS</sub> = 0    |     | 1.5  | V    |



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