

## **INCHANGE SEMICONDUCTOR**

## isc N-Channel MOSFET Transistor

## 2SK260

### DESCRIPTION

- Drain Current –I<sub>D</sub>=5A@ T<sub>C</sub>=25<sup>°</sup>C
- Drain Source Voltage-
- : V<sub>DSS</sub>= 400V(Min)
- · Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

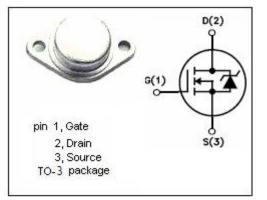
• Designed especially for high voltage, high speed applications

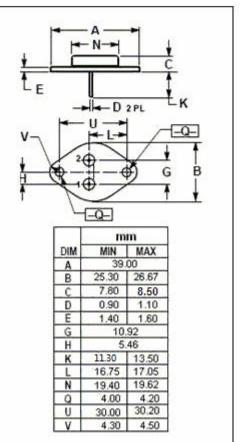
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | ARAMETER                                  | VALUE   | UNIT |
|------------------|---|---------|------|
| V <sub>DSS</sub> | Drain-Source Voltage (V <sub>GS</sub> =0) | 400     | V    |
| V <sub>GS</sub>  | Gate-Source Voltage                       | ±20     | V    |
| ID               | Drain Current-continuous@ TC=25°C         | 5       | А    |
| Ptot             | Total Dissipation@TC=25°C                 | 125     | W    |
| Tj               | Max. Operating Junction Temperature       | 200     | °C   |
| T <sub>stg</sub> | Storage Temperature Range                 | -65~200 | °C   |

#### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                               | МАХ  | UNIT |
|---------------------|---|------|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case    | 1.67 | °C/W |
| Rth j-a             | Thermal Resistance, Junction to Ambient | 62.5 | °C/W |







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| SYMBOL                     | PARAMETER                        | CONDITIONS                                   | MIN | ТҮР | MAX  | UNIT |  |  |
|----------------------------|----------------------------------|--|-----|-----|------|------|--|--|
| V(BR)DSS                   | Drain-Source Breakdown Voltage   | V <sub>GS</sub> =0; I <sub>D</sub> = 10mA    | 400 |     |      | V    |  |  |
| $V_{\text{GS}(\text{TH})}$ | Gate Threshold Voltage           | V <sub>DS</sub> = 10V; I <sub>D</sub> = 10mA | 0.4 |     | 3.0  | V    |  |  |
| R <sub>DS(ON)</sub>        | Drain-Source On-stage Resistance | V <sub>GS</sub> = 15V; I <sub>D</sub> = 3A   |     | 2.5 | 3.0  | Ω    |  |  |
| I <sub>GSS</sub>           | Gate Source Leakage Current      | V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0  |     |     | ±100 | uA   |  |  |
| I <sub>DSS</sub>           | Zero Gate Voltage Drain Current  | V <sub>DS</sub> =320V; V <sub>GS</sub> = 0   |     |     | 1    | mA   |  |  |
| V <sub>DS(ON)</sub>        | Drain-Source Saturation Voltage  | I <sub>F</sub> = 3A; V <sub>GS</sub> = 15V   |     | 7.5 | 9.5  | V    |  |  |

## • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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