

## isc N-Channel MOSFET Transistor

## 2SK959

#### DESCRIPTION

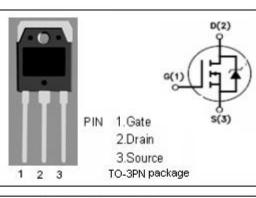
- Drain Current –I<sub>D</sub>=2A@ T<sub>C</sub>=25<sup>°</sup>C
- Drain Source Voltage-
- : V<sub>DSS</sub>=900V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

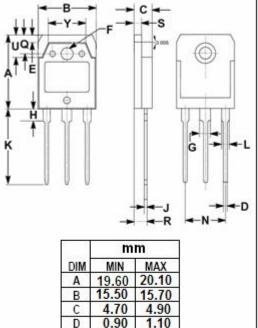
#### APPLICATIONS

- Designed especially for high voltage.
- high speed applications.

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| PARAMETER                                 | VALUE   | UNIT  |
|---|---|---|
| Drain-Source Voltage (V <sub>GS</sub> =0) | 900   | V   |
| Gate-Source Voltage                       | ±20   | V   |
| Drain Current-continuous@ TC=25℃          | 2   | А   |
| Total Dissipation@TC=25°C                 | 80  | W   |
| Max. Operating Junction Temperature       | 80  | °C  |
| Storage Temperature Range                 | -55~150   | °C  |
|   | Drain-Source Voltage (V <sub>GS</sub> =0)   Gate-Source Voltage   Drain Current-continuous@ TC=25°C   Total Dissipation@TC=25°C   Max. Operating Junction Temperature | Drain-Source Voltage (V <sub>GS</sub> =0) 900   Gate-Source Voltage ±20   Drain Current-continuous@ TC=25°C 2   Total Dissipation@TC=25°C 80   Max. Operating Junction Temperature 80 |





1

Ε

F

G

Н

J

K

Ν

0

R

s

11

Y

1.90

3.40

2.90

3.20

0.595

20.00

10.89

4.90

3.35

1.995

5.90

9.90

2.10

3.60

3.20

3.40

0.605

20.70

2.20

10.91

5.10

3.45

2.100

6.10



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| ELECTRI             | ELECTRICAL CHARACTERISTICS (16-29 C) |  |     |      |      |      |  |  |  |
|---------------------|--------------------------------------|--|-----|------|------|------|--|--|--|
| SYMBOL              | PARAMETER                            | CONDITIONS   | MIN | TYP. | МАХ  | UNIT |  |  |  |
| (BR)DSS             | Drain-Source Breakdown Voltage       | V <sub>GS</sub> =0; I <sub>D</sub> = 1mA                 | 900 |      |      | V    |  |  |  |
| V <sub>GS(TH)</sub> | Gate Threshold Voltage               | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 1mA | 2.5 | 3.5  | 5.0  | V    |  |  |  |
| R <sub>DS(ON)</sub> | Drain-Source On-stage Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> =1A                |     |      | 8.5  | Ω    |  |  |  |
| I <sub>GSS</sub>    | Gate Source Leakage Current          | V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0              |     |      | ±100 | nA   |  |  |  |
| IDSS                | Zero Gate Voltage Drain Current      | V <sub>DS</sub> =900V; V <sub>GS</sub> = 0               |     |      | 500  | uA   |  |  |  |

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

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