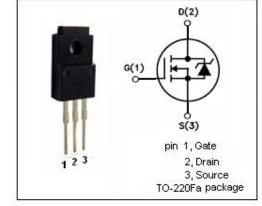


# isc N-Channel MOSFET Transistor

2SK749

### **DESCRIPTION**

- Drain Current –I<sub>D</sub>= 10A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>= 100V(Min)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

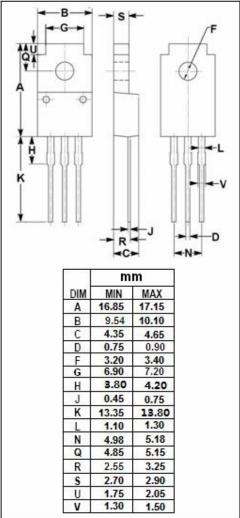


#### **APPLICATIONS**

· High speed power switching.



| 712002012 III/ 04III/05(1a 20 0) |   |         |            |  |  |  |  |
|----------------------------------|---|---------|------------|--|--|--|--|
| SYMBOL                           | ARAMETER                                  | VALUE   | UNIT       |  |  |  |  |
| V <sub>DSS</sub>                 | Drain-Source Voltage (V <sub>GS</sub> =0) | 100     | V          |  |  |  |  |
| V <sub>G</sub> s                 | Gate-Source Voltage                       | ±20     | ٧          |  |  |  |  |
| l <sub>D</sub>                   | Drain Current-continuous@ TC=25℃          | 10      | Α          |  |  |  |  |
| P <sub>tot</sub>                 | Total Dissipation@TC=25℃                  | 50      | W          |  |  |  |  |
| Tj                               | Max. Operating Junction Temperature       | 150     | °C         |  |  |  |  |
| T <sub>stg</sub>                 | Storage Temperature Range                 | -55~150 | $^{\circ}$ |  |  |  |  |





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

| SYMBOL               | PARAMETER                        | CONDITIONS  | MIN | TYP | MAX  | UNIT |
|----------------------|----------------------------------|---|-----|-----|------|------|
| V <sub>(BR)DSS</sub> | Drain-Source Breakdown Voltage   | V <sub>GS</sub> =0; I <sub>D</sub> = 10mA                 | 100 |     |      | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage           | V <sub>DS</sub> =10 V <sub>GS</sub> ; I <sub>D</sub> =1mA | 1.0 |     | 5.0  | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-stage Resistance | V <sub>GS</sub> =10V; I <sub>D</sub> = 5A                 |     |     | 0.18 | Ω    |
| Igss                 | Gate Source Leakage Current      | V <sub>GS</sub> = ±16V;V <sub>DS</sub> = 0                |     |     | ±10  | uA   |
| I <sub>DSS</sub>     | Zero Gate Voltage Drain Current  | V <sub>DS</sub> =80V; V <sub>GS</sub> = 0                 |     |     | 250  | uA   |
| V <sub>SD</sub>      | Diode Forward Voltage            | I <sub>F</sub> =10A; V <sub>GS</sub> =0                   |     | 1.2 |      | V    |



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