

# isc N-Channel Mosfet Transistor

# STB11NM60N

### • FEATURES

- Drain Current ID= 10A@ TC=25  $^{\circ}\mathrm{C}$
- · Drain Source Voltage-
  - : V<sub>DSS</sub>=600V(Min)
- · Fast Switching Speed
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • APPLICATIONS

Switching applications

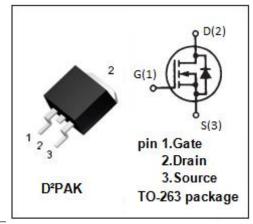


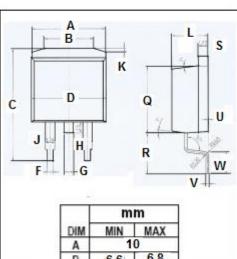
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER                                     | VALUE   | UNIT       |
|------------------|---|---------|------------|
| V <sub>DSS</sub> | Drain-Source Voltage                          | 600     | V          |
| V <sub>GS</sub>  | Gate-Source Voltage                           | ±25     | V          |
| I <sub>D</sub>   | Drain Current-continuous@ T <sub>c</sub> =25℃ | 10      | А          |
| І <sub>ОМ</sub>  | Pulse Drain Current                           | 40      | А          |
| P <sub>tot</sub> | Total Dissipation@T <sub>C</sub> =25℃         | 90      | W          |
| T <sub>j</sub>   | Max. Operating Junction Temperature           | 150     | $^{\circ}$ |
| T <sub>stg</sub> | Storage Temperature Range                     | -55~150 | $^{\circ}$ |

#### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                            | MAX  | UNIT |
|---------------------|--------------------------------------|------|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case | 1.38 | °C/W |





| DIM | MIN   | MAX   |  |
|-----|-------|-------|--|
| Α   | 10    |       |  |
| В   | 6.6   | 6.8   |  |
| C   | 15.23 | 15.25 |  |
| D   | 10.15 | 10.17 |  |
| F   | 0.76  | 0.78  |  |
| G   | 1.26  | 1.28  |  |
| Н   | 1.4   | 1.6   |  |
| J   | 1.33  | 1.35  |  |
| K   | 0.4   | 0.6   |  |
| L   | 4.6   | 4.8   |  |
| 0   | 8.69  | 8.71  |  |
| R   | 5.28  | 5.30  |  |
| S   | 1.26  | 1.28  |  |
| U   | 0.0   | 0.2   |  |
| V   | 0.37  | 0.39  |  |
| W   | 2.80  | 2.82  |  |



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#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

| SYMBOL               | PARAMETER                       | CONDITIONS  | MIN | TYPE | MAX  | UNIT |
|----------------------|---------------------------------|---|-----|------|------|------|
| V <sub>(BR)DSS</sub> | Drain-Source Breakdown Voltage  | V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA                 | 600 |      |      | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =250μA | 2   |      | 4    | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> =5A                 |     |      | 450  | 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> = 600V; V <sub>GS</sub> = 0               |     |      | 1    | μΑ   |
|                      |                                 | V <sub>DS</sub> = 600V; T <sub>C</sub> =125℃              |     |      | 10   |      |
| V <sub>SD</sub>      | Diode Forward On-Voltage        | I <sub>S</sub> = 10A;V <sub>GS</sub> = 0                  |     |      | 1.3  | V    |

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