

# isc N-Channel MOSFET Transistor

# IXTA80N10T

- FEATURES
- With TO-263 packaging
- High speed switching
- Low gate input resistance
- · Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Power supply
- Switching applications

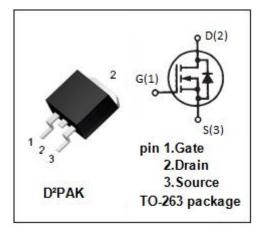


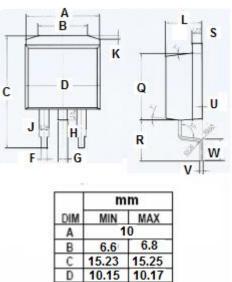
| SYMBOL           | PARAMETER                      | VALUE   | UNIT |  |
|------------------|--------------------------------|---------|------|--|
| V <sub>DSS</sub> | Drain-Source Voltage           | 100     | V    |  |
| V <sub>GSS</sub> | Gate-Source Voltage ±30        |         | V    |  |
| ID               | Drain Current-Continuous 80    |         | А    |  |
| I <sub>DM</sub>  | Drain Current-Single Pulsed    | 220     | А    |  |
| PD               | Total Dissipation              | 230     | W    |  |
| Tj               | Operating Junction Temperature | 175     | °C   |  |
| T <sub>stg</sub> | Storage Temperature            | -55~175 | °C   |  |

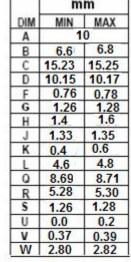
#### THERMAL CHARACTERISTICS

| SYMBOL    | PARAMETER                             | МАХ  | UNIT |
|-----------|---------------------------------------|------|------|
| Rth(ch-c) | Channel-to-case thermal resistance    | 0.65 | °C/W |
| Rth(ch-a) | Channel-to-ambient thermal resistance | 62.5 | °C/W |

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## **IXTA80N10T**

### **ELECTRICAL CHARACTERISTICS**

#### $T_{\text{C}}\text{=}25^{\circ}\!\!\!\!\!\mathrm{C}$ unless otherwise specified

| SYMBOL              | PARAMETER                      | CONDITIONS   | MIN | ТҮР | MAX  | UNIT |
|---------------------|--------------------------------|--|-----|-----|------|------|
| BV <sub>DSS</sub>   | Drain-Source Breakdown Voltage | V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA             | 105 |     |      | v    |
| $V_{GS(th)}$        | Gate Threshold Voltage         | V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =0.1mA | 2.5 |     | 5.0  | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> =25A               |     |     | 14   | mΩ   |
| Igss                | Gate-Source Leakage Current    | V <sub>GS</sub> =±20V;V <sub>DS</sub> = 0V               |     |     | ±0.2 | μA   |
| I <sub>DSS</sub>    | Drain-Source Leakage Current   | V <sub>DS</sub> = 75V; V <sub>GS</sub> = 0V              |     |     | 5    | μA   |
| VSDF                | Diode forward voltage          | I <sub>SD</sub> =25A, V <sub>GS</sub> = 0 V              |     |     | 1.1  | V    |

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