

## isc N-Channel MOSFET Transistor

## IPB073N15N5

## • FEATURES

- With TO-263(D2PAK) packaging
- Very low reverse recovery charge
- High speed switching
- Very low on-resistance
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

## • APPLICATIONS

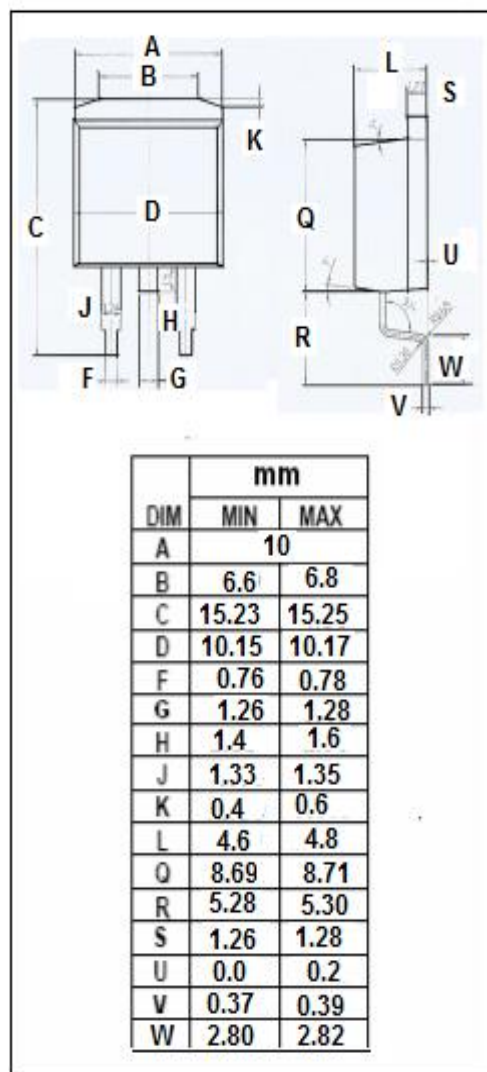
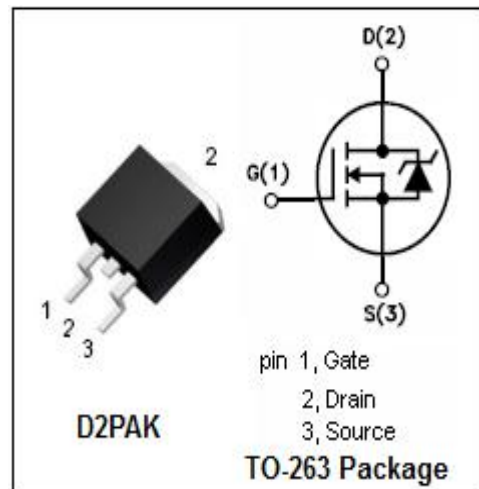
- Switching applications

• ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

| SYMBOL    | PARAMETER                                                                       | VALUE     | UNIT               |
|-----------|---------------------------------------------------------------------------------|-----------|--------------------|
| $V_{DSS}$ | Drain-Source Voltage                                                            | 150       | V                  |
| $V_{GSS}$ | Gate-Source Voltage                                                             | $\pm 20$  | V                  |
| $I_D$     | Drain Current-Continuous@ $T_c=25^{\circ}\text{C}$<br>$T_c=100^{\circ}\text{C}$ | 114<br>81 | A                  |
| $I_{DM}$  | Drain Current-Single Pulsed                                                     | 456       | A                  |
| $P_D$     | Total Dissipation                                                               | 214       | W                  |
| $T_j$     | Operating Junction Temperature                                                  | -55~175   | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature                                                             | -55~175   | $^{\circ}\text{C}$ |

## • THERMAL CHARACTERISTICS

| SYMBOL         | PARAMETER                             | MAX | UNIT                 |
|----------------|---------------------------------------|-----|----------------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance    | 0.7 | $^{\circ}\text{C/W}$ |
| $R_{th(ch-a)}$ | Channel-to-ambient thermal resistance | 62  | $^{\circ}\text{C/W}$ |



**isc N-Channel MOSFET Transistor****IPB073N15N5****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

| SYMBOL              | PARAMETER                      | CONDITIONS                                                                                 | MIN | TYP | MAX      | UNIT |
|---------------------|--------------------------------|--------------------------------------------------------------------------------------------|-----|-----|----------|------|
| BV <sub>DSS</sub>   | Drain-Source Breakdown Voltage | V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA                                               | 150 |     |          | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> =±20V; I <sub>D</sub> =0.79mA                                              | 3.0 |     | 4.6      | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> =57A                                                 |     | 5.6 | 7.3      | mΩ   |
| I <sub>GSS</sub>    | Gate-Source Leakage Current    | V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V                                               |     |     | ±0.1     | μA   |
| I <sub>DSS</sub>    | Drain-Source Leakage Current   | V <sub>DS</sub> = 120V; V <sub>GS</sub> = 0V@T <sub>j</sub> =25°C<br>T <sub>j</sub> =125°C |     |     | 1<br>100 | μA   |
| V <sub>SDF</sub>    | Diode forward voltage          | I <sub>SD</sub> =57A, V <sub>GS</sub> = 0 V                                                |     |     | 1.1      | V    |

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