

**isc N-Channel MOSFET Transistor**
**FDB3632**
**• FEATURES**

- With TO-263 packaging
- Drain Source Voltage-  
:  $V_{DSS} \geq 100V$
- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 9m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

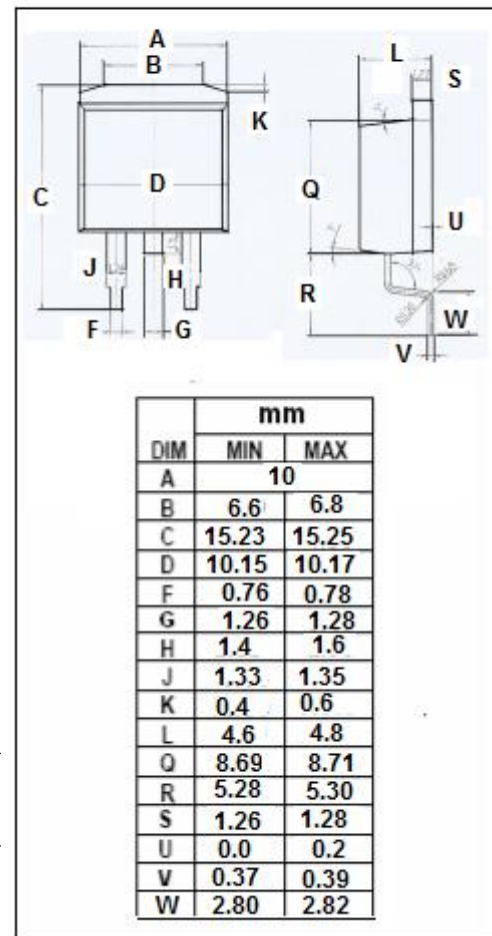
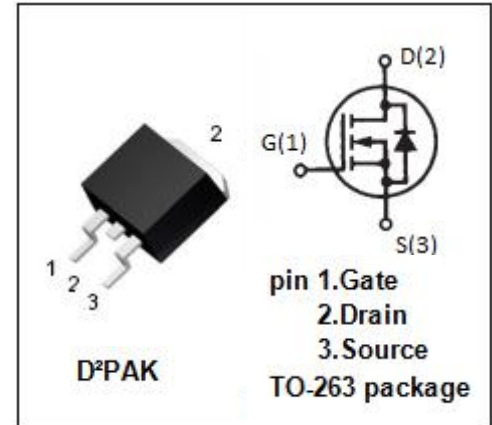
- Power supply
- Switching applications

**• ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )**

| SYMBOL    | PARAMETER                                    | VALUE    | UNIT       |
|-----------|--|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage                         | 100      | V          |
| $V_{GSS}$ | Gate-Source Voltage                          | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous; @ $T_c=25^\circ C$ | 80       | A          |
| $P_D$     | Total Dissipation                            | 310      | W          |
| $T_j$     | Operating Junction Temperature               | -55~175  | $^\circ C$ |
| $T_{stg}$ | Storage Temperature                          | -55~175  | $^\circ C$ |

**• THERMAL CHARACTERISTICS**

| SYMBOL         | PARAMETER                          | MAX  | UNIT         |
|----------------|------------------------------------|------|--------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance | 0.48 | $^\circ C/W$ |



## isc N-Channel MOSFET Transistor

FDB3632

## 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> = 250uA  | 100 |     |          | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =250uA   | 2   |     | 4        | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> = 80A  |     |     | 9        | mΩ   |
| I <sub>GSS</sub>    | Gate-Source Leakage Current    | V <sub>GS</sub> =±20V;V <sub>DS</sub> = 0V   |     |     | ±100     | nA   |
| I <sub>DSS</sub>    | Drain-Source Leakage Current   | V <sub>DS</sub> = 80V; V <sub>GS</sub> = 0V<br>V <sub>DS</sub> = 80V; V <sub>GS</sub> = 0V;T <sub>J</sub> =150°C |     |     | 1<br>250 | μA   |
| V <sub>SDF</sub>    | Diode forward voltage          | I <sub>SD</sub> = 80A, V <sub>GS</sub> = 0 V   |     |     | 1.25     | V    |

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