

**isc N-Channel MOSFET Transistor**
**AOB2918L**
**• FEATURES**

- Drain Current  $-I_D = 90A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 100V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 7m\Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• DESCRIPTION**

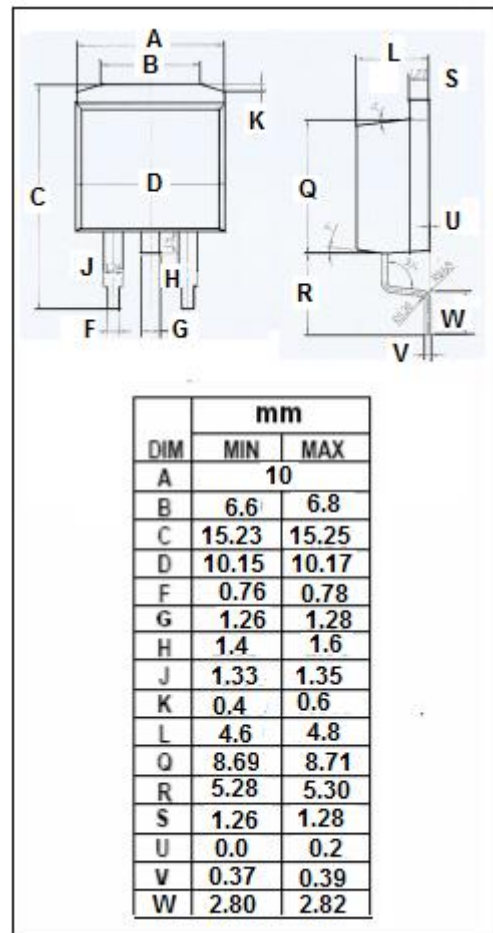
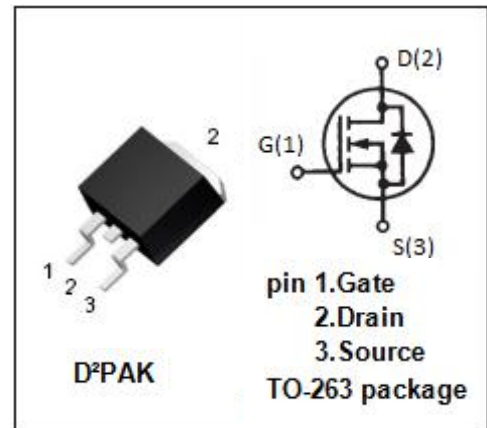
- Be suitable for synchronous rectification for server and general purpose applications

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

| SYMBOL    | PARAMETER                              | VALUE    | UNIT       |
|-----------|--|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage                   | 100      | V          |
| $V_{GS}$  | Gate-Source Voltage                    | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous               | 90       | A          |
| $I_{DM}$  | Drain Current-Single Pulsed            | 260      | A          |
| $P_D$     | Total Dissipation @ $T_C = 25^\circ C$ | 267      | W          |
| $T_j$     | Max. 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 | 0.56 | $^\circ C/W$ |



## isc N-Channel MOSFET Transistor

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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

| SYMBOL              | PARAMETER                      | CONDITIONS  | MIN | MAX     | UNIT |
|---------------------|--------------------------------|---|-----|---------|------|
| BV <sub>DSS</sub>   | Drain-Source Breakdown Voltage | V <sub>GS</sub> =0V; I <sub>D</sub> = 250 μA  | 100 |         | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 250 μA   | 2.7 | 3.9     | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> = 20A<br>V <sub>GS</sub> = 10V; I <sub>D</sub> = 20A; T <sub>J</sub> = 125°C  |     | 7<br>12 | 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> = 100V; V <sub>GS</sub> = 0V<br>V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V; T <sub>J</sub> = 55°C |     | 1<br>5  | μA   |
| V <sub>SD</sub>     | Diode forward voltage          | I <sub>S</sub> = 1A; V <sub>GS</sub> = 0V   |     | 1       | V    |

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