

## isc N-Channel MOSFET Transistor

## AOK20S60L

## FEATURES

- Drain Current  $-I_D = 20A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 600V (Min)$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.199 \Omega (Max)$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## DESCRIPTION

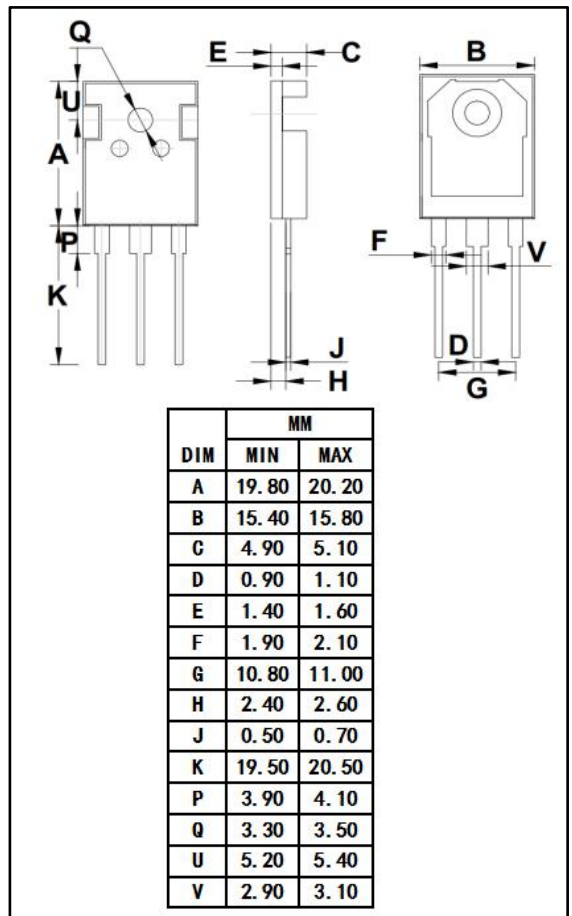
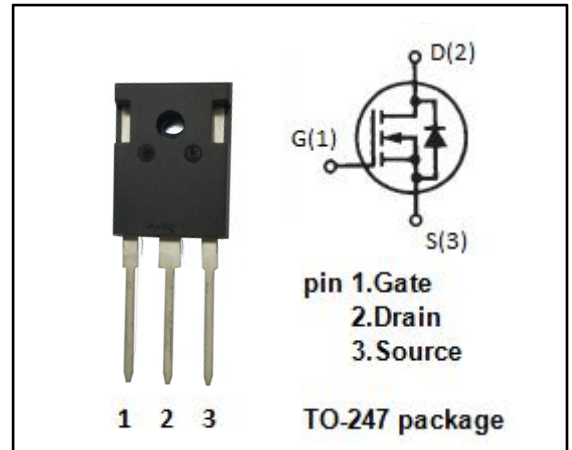
- Designed for use in switch mode power supplies and general purpose applications.

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

| SYMBOL    | PARAMETER                              | VALUE    | UNIT       |
|-----------|----------------------------------------|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage                   | 600      | V          |
| $V_{GS}$  | Gate-Source Voltage-Continuous         | $\pm 30$ | V          |
| $I_D$     | Drain Current-Continuous               | 20       | A          |
| $I_{DM}$  | Drain Current-Single Pluse             | 80       | A          |
| $P_D$     | Total Dissipation @ $T_C = 25^\circ C$ | 266      | W          |
| $T_J$     | Max. Operating Junction Temperature    | -55~150  | $^\circ C$ |
| $T_{stg}$ | Storage Temperature                    | -55~150  | $^\circ C$ |

## THERMAL CHARACTERISTICS

| SYMBOL       | PARAMETER                            | MAX  | UNIT         |
|--------------|--------------------------------------|------|--------------|
| $R_{th j-c}$ | Thermal Resistance, Junction to Case | 0.47 | $^\circ C/W$ |



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## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C 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> = 0.25mA                                                                   | 600 |      |       | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA                                                    | 2.8 |      | 4.1   | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> =10A                                                                     |     |      | 0.199 | Ω    |
| I <sub>GSS</sub>     | Gate-Body Leakage Current       | V <sub>GS</sub> = ±30V; 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<br>V <sub>DS</sub> =600V; V <sub>GS</sub> = 0@T <sub>C</sub> =150°C |     | 10   | 1     | μA   |
| V <sub>SD</sub>      | Forward On-Voltage              | I <sub>S</sub> = 10A; V <sub>GS</sub> = 0                                                                      |     | 0.84 |       | V    |

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