

## isc N-Channel MOSFET Transistor

## FDP060AN08A0

## • FEATURES

- With TO-220 packaging
- Drain Source Voltage-  
:  $V_{DS} \geq 75V$
- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 6m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • APPLICATIONS

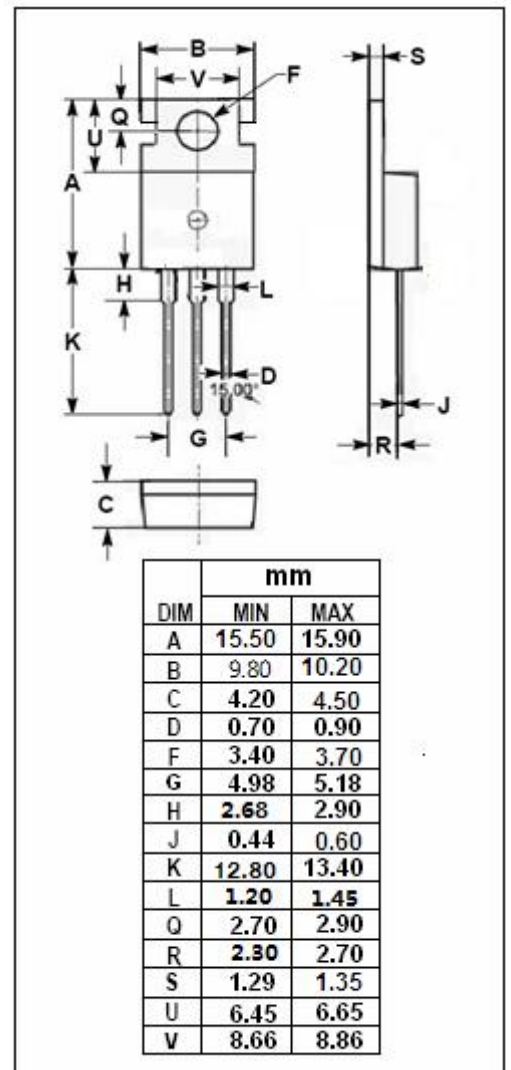
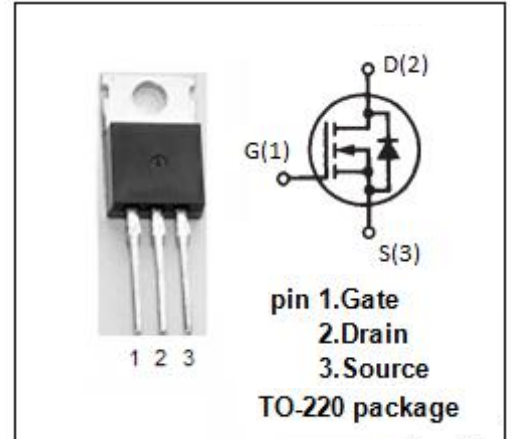
- Power supply
- Switching applications

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

| SYMBOL    | PARAMETER                                    | VALUE    | UNIT       |
|-----------|----------------------------------------------|----------|------------|
| $V_{DS}$  | Drain-Source Voltage                         | 75       | V          |
| $V_{GS}$  | Gate-Source Voltage                          | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous; @ $T_c=25^\circ C$ | 80       | A          |
| $P_D$     | Total Dissipation                            | 255      | 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 | 0.58 | $^\circ C/W$ |



**isc N-Channel MOSFET Transistor****FDP060AN08A0****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                                                                       | 75  |     |          | 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                                                                       |     |     | 6        | 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> = 60V; V <sub>GS</sub> = 0V<br>V <sub>DS</sub> = 60V; 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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