

## isc N-Channel MOSFET Transistor

IPP032N06N3, IIPP032N06N3

## • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 2.9m\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • DESCRIPTION

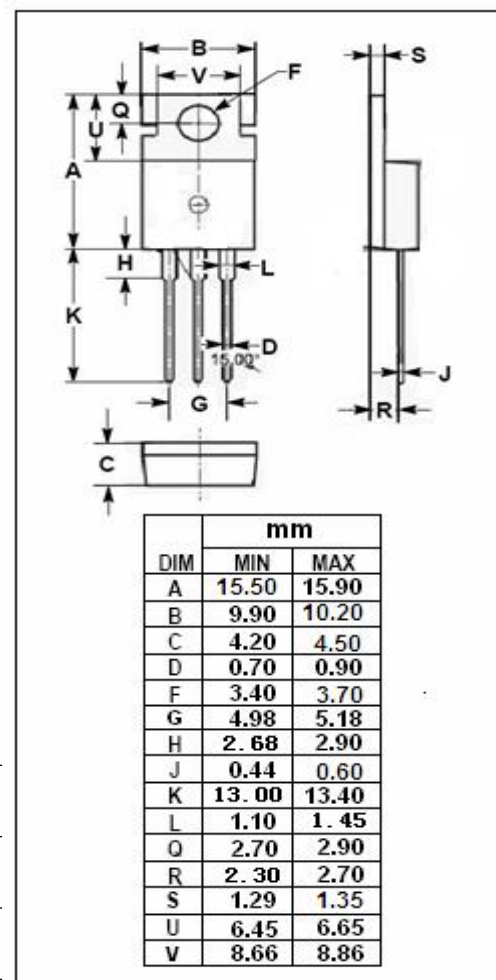
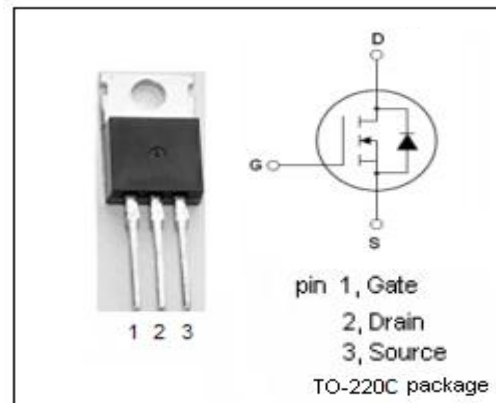
- reliable device for use in a wide variety of applications

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

| SYMBOL    | PARAMETER                            | VALUE    | UNIT       |
|-----------|--------------------------------------|----------|------------|
| $V_{DS}$  | Drain-Source Voltage                 | 60       | V          |
| $V_{GS}$  | Gate-Source Voltage                  | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous             | 120      | A          |
| $I_{DM}$  | Drain Current-Single Pulsed          | 480      | A          |
| $P_D$     | Total Dissipation @ $T_c=25^\circ C$ | 188      | W          |
| $T_j$     | Max. Operating Junction Temperature  | 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    | 0.8 | $^\circ C/W$ |
| $R_{th(ch-a)}$ | Channel-to-ambient thermal resistance | 62  | $^\circ C/W$ |



**isc N-Channel MOSFET Transistor****IPP032N06N3, IIPP032N06N3****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> = 1mA                 | 60  |     |     | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =118 μA | 2   |     | 4   | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> =10V; I <sub>D</sub> =100A                |     |     | 3.2 | 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> =60V; V <sub>GS</sub> = 0V                |     |     | 2   | μA   |
| V <sub>SD</sub>     | Diode forward voltage          | I <sub>F</sub> =100A, V <sub>GS</sub> = 0 V               |     |     | 1.2 | V    |

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