

## isc N-Channel MOSFET Transistor

## IPP60R299CP, IIPP60R299CP

## • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 0.299\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • DESCRIPTION

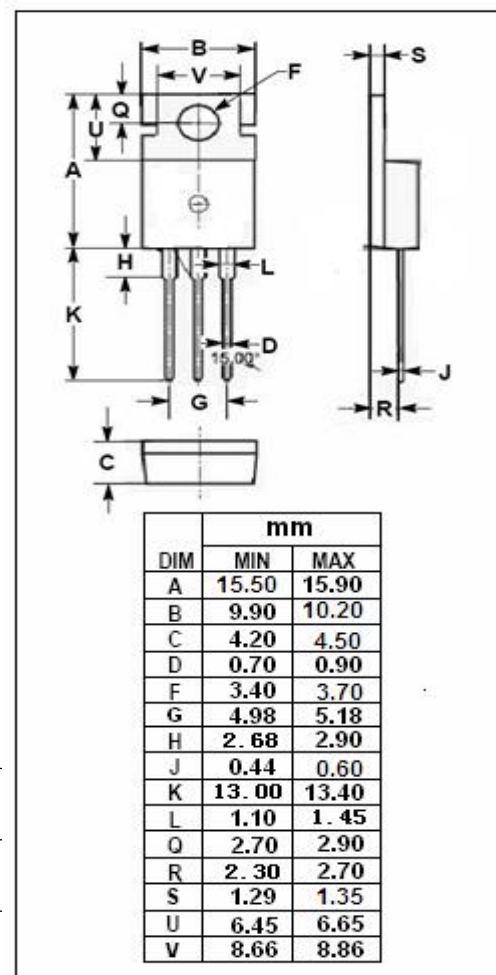
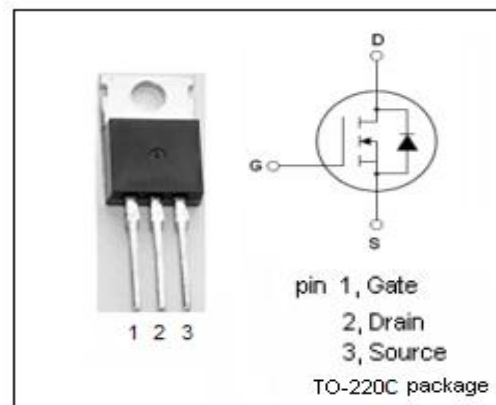
- Ultra low gate charge
- High peak current capability

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

| SYMBOL    | PARAMETER                                  | VALUE    | UNIT             |
|-----------|--------------------------------------------|----------|------------------|
| $V_{DS}$  | Drain-Source Voltage                       | 600      | V                |
| $V_{GS}$  | Gate-Source Voltage                        | $\pm 20$ | V                |
| $I_D$     | Drain Current-Continuous                   | 11       | A                |
| $I_{DM}$  | Drain Current-Single Pulsed                | 34       | A                |
| $P_D$     | Total Dissipation @ $T_c=25^\circ\text{C}$ | 96       | W                |
| $T_j$     | Max. Operating Junction Temperature        | 150      | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature                        | -55~150  | $^\circ\text{C}$ |

## • THERMAL CHARACTERISTICS

| SYMBOL         | PARAMETER                             | MAX | UNIT               |
|----------------|---------------------------------------|-----|--------------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance    | 1.3 | $^\circ\text{C/W}$ |
| $R_{th(ch-a)}$ | Channel-to-ambient thermal resistance | 62  | $^\circ\text{C/W}$ |



**isc N-Channel MOSFET Transistor****IPP60R299CP, IIPP60R299CP****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> =0.25mA               | 600 |     |       | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =0.44mA | 2.5 |     | 3.5   | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> =10V; I <sub>D</sub> =6.6A                |     |     | 0.299 | Ω    |
| 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> =600V; V <sub>GS</sub> = 0V               |     |     | 1     | μA   |
| V <sub>SD</sub>     | Diode forward voltage          | I <sub>F</sub> =6.6A; V <sub>GS</sub> = 0V                |     |     | 1.2   | V    |

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