

isc N-Channel MOSFET Transistor

IPP60R099C6, IIPP60R099C6

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 0.099\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

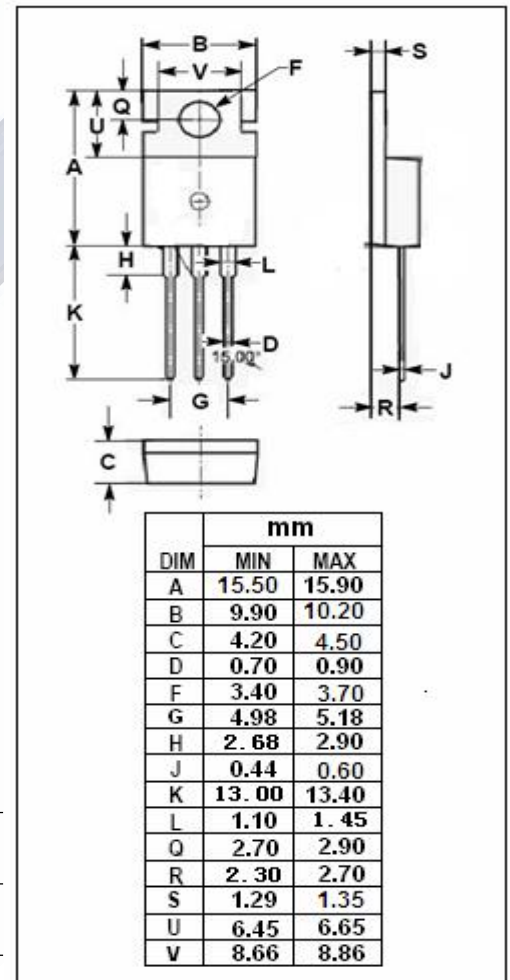
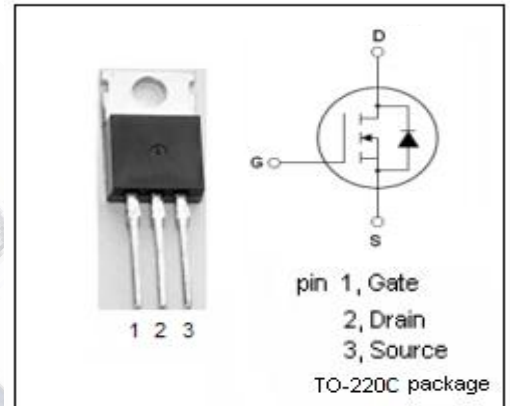
- Provide all benefits of a fast switching super junction MOS while not Sacrificing ease of use

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|---------|------|
| V _{DSS} | Drain-Source Voltage | 600 | V |
| V _{GS} | Gate-Source Voltage | ±20 | V |
| I _D | Drain Current-Continuous | 37.9 | A |
| I _{DM} | Drain Current-Single Pulsed | 112 | A |
| P _D | Total Dissipation @T _c =25°C | 278 | W |
| T _j | Max. Operating Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55~150 | °C |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------------------|---------------------------------------|------|------|
| R _{th(ch-c)} | Channel-to-case thermal resistance | 0.45 | °C/W |
| R _{th(ch-a)} | Channel-to-ambient thermal resistance | 62 | °C/W |



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------|--------------------------------|---|-----|-----|-------|------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} =0V; I _D =250 μ A | 600 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =V _{GS} ; I _D =1.21mA | 2.5 | | 3.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} =10V; I _D =18.1A | | | 0.099 | Ω |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} =20V; V _{DS} =0V | | | 0.1 | μ A |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} =600V; V _{GS} = 0V | | | 5 | μ A |
| V _{SD} | Diode forward voltage | I _F =18.1A; V _{GS} =0V | | 0.9 | | V |