

isc N-Channel MOSFET Transistor

IRFB4615, IIRFB4615

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 39m\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

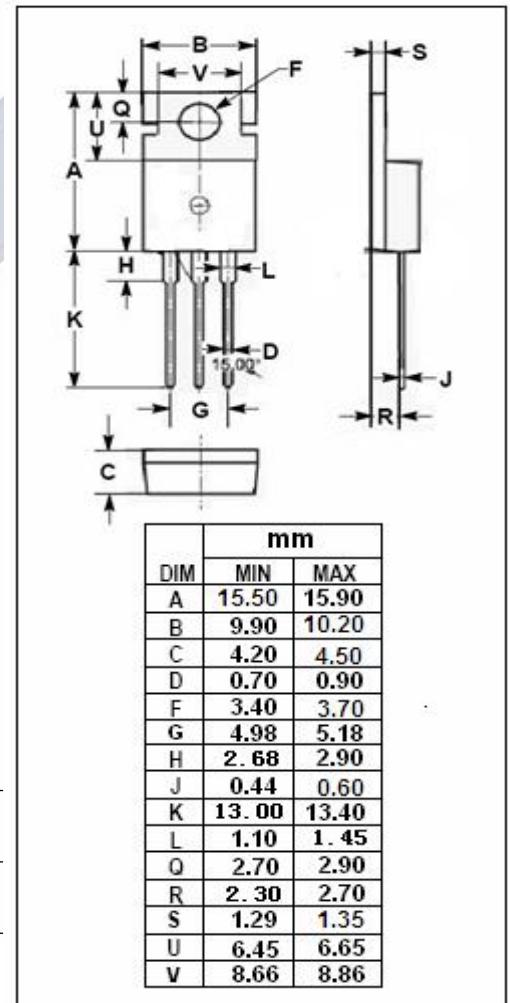
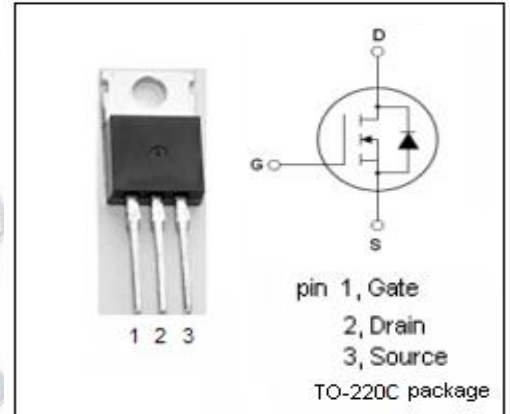
- High Efficiency Synchronous Rectification in SMPS
- Uninterruptible Power Supply

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|---------|------|
| V _{DSS} | Drain-Source Voltage | 150 | V |
| V _{GS} | Gate-Source Voltage | ±20 | V |
| I _D | Drain Current-Continuous | 35 | A |
| I _{DM} | Drain Current-Single Pulsed | 140 | A |
| P _D | Total Dissipation @T _c =25°C | 144 | W |
| T _j | Max. Operating Junction Temperature | 175 | °C |
| T _{stg} | Storage Temperature | -55~175 | °C |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------------------|---------------------------------------|-------|------|
| R _{th(ch-c)} | Channel-to-case thermal resistance | 1.045 | °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 | 150 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =V _{GS} ; I _D =100 μ A | 3 | | 5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} =10V; I _D =21A | | | 39 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±20V | | | ±0.1 | μ A |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} =150V; V _{GS} = 0V | | | 20 | μ A |
| V _{SD} | Diode forward voltage | I _S =21A; V _{GS} = 0V | | | 1.3 | V |