

isc N-Channel MOSFET Transistor
IXFP12N65X2M
• FEATURES

- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

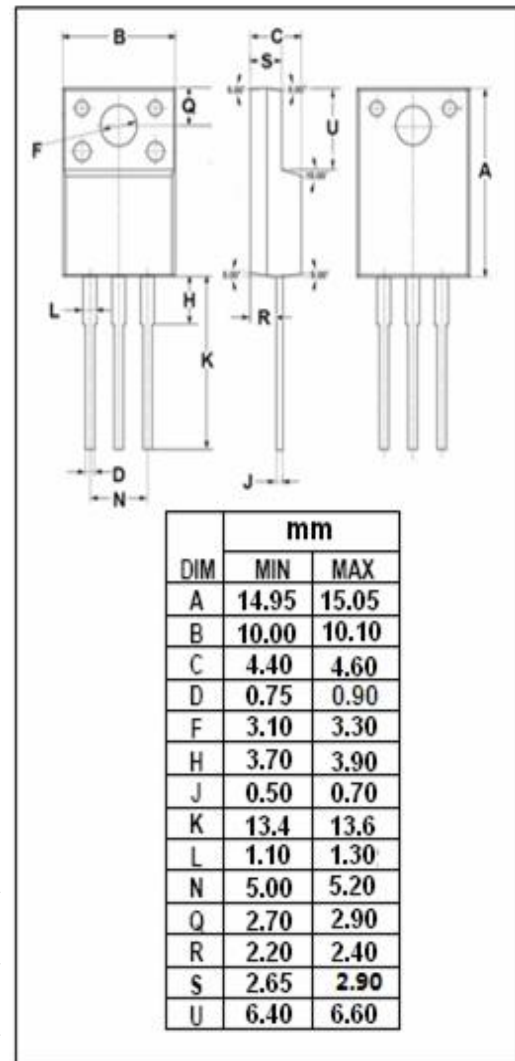
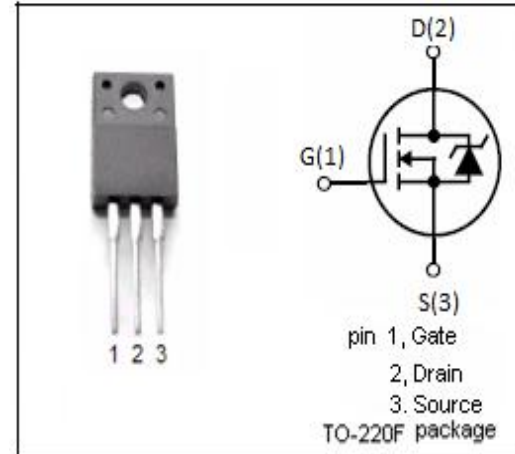
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|--------------------------------|---------|------|
| V _{DSS} | Drain-Source Voltage | 650 | V |
| V _{GSS} | Gate-Source Voltage | ±30 | V |
| I _D | Drain Current-Continuous | 12 | A |
| I _{DM} | Drain Current-Single Pulsed | 24 | A |
| P _D | Total Dissipation | 40 | W |
| T _j | Operating Junction Temperature | -55~150 | °C |
| T _{stg} | Storage Temperature | -55~150 | °C |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------------------|------------------------------------|------|------|
| R _{th(ch-c)} | Channel-to-case thermal resistance | 3.12 | °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 = 0.25mA | 650 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =±30V; I _D =0.25mA | 3.0 | | 5.0 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =6A | | | 310 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±30V; V _{DS} = 0V | | | ±0.1 | μA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = 650V; V _{GS} = 0V; @T _C =25°C T _C =125°C | | | 10 500 | μA |
| V _{SDF} | Diode forward voltage | I _{SD} =12A, V _{GS} = 0 V | | | 1.4 | V |

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