

isc N-Channel MOSFET Transistor

IXTP32N65XM

• FEATURES

- High power dissipation
- Static drain-source on-resistance:
 $R_{DS(on)} \leq 135m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

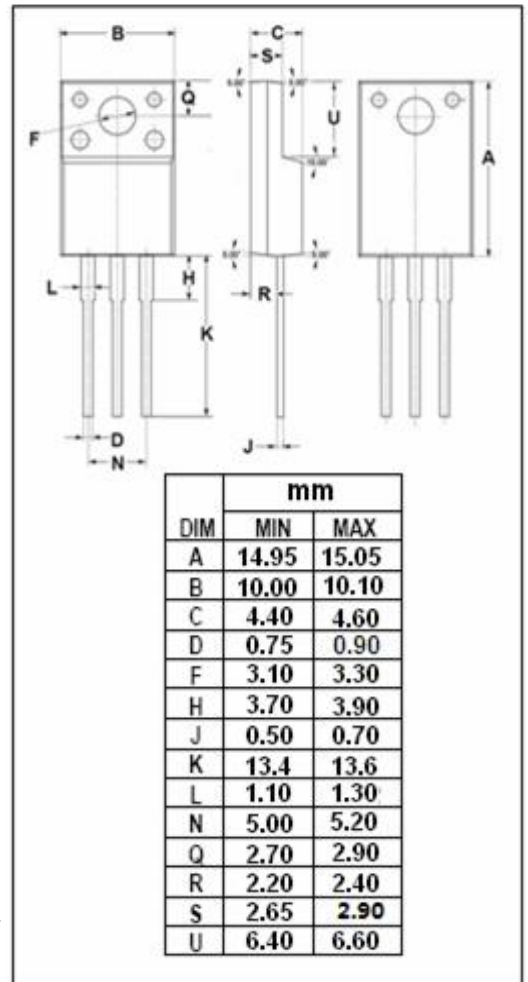
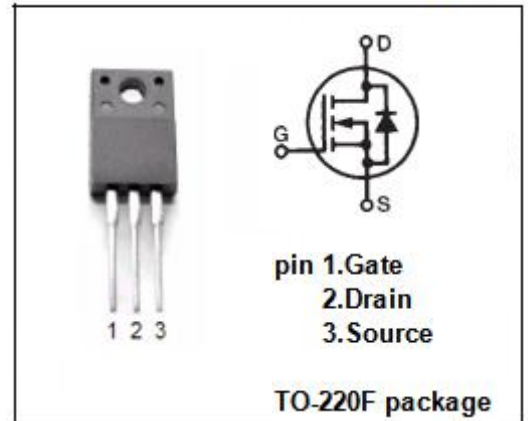
- DC/DC Converters
- AC and DC Motor Drives
- Switch-Mode and Resonant-Mode Power Supplies

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--------------------------------------|----------|------------|
| V_{DS} | Drain-Source Voltage | 650 | V |
| V_{GS} | Gate-Source Voltage | ± 30 | V |
| I_D | Drain Current-Continuous | 14 | A |
| I_{DM} | Drain Current-Single Pulsed | 64 | A |
| P_D | Total Dissipation @ $T_c=25^\circ C$ | 78 | W |
| T_j | Operating Junction Temperature | -55~150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ C$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|-------------------------------------|-----|--------------|
| $R_{th(j-c)}$ | Junction-to-case thermal resistance | 1.6 | $^\circ C/W$ |



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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 μA | 650 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =V _{GS} ; I _D = 250 μA | 3 | | 5.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} =10V; I _D = 16A | | | 135 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±30V; V _{DS} =0V | | | ±100 | nA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = V _{DSS} ; V _{GS} = 0V | | | 5 | μA |
| | | V _{DS} = V _{DSS} ; V _{GS} = 0V; T _J = 125°C | | | 50 | |
| V _{SD} | Diode forward voltage | I _F = 32A; V _{GS} = 0V | | | 1.4 | V |

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