

isc N-Channel MOSFET Transistor
IXTP160N10T
• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 7.0m\Omega @ V_{GS}=10V$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

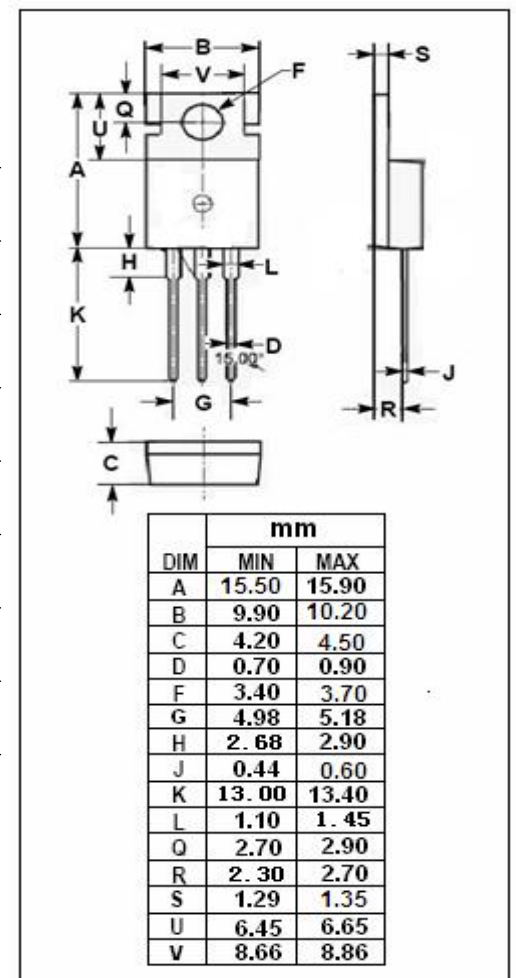
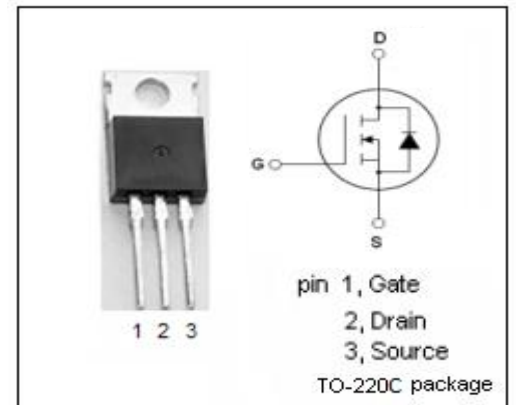
- DC/DC Converters
- High Current Switching Applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--------------------------------------|----------|------------|
| V_{DSS} | Drain-Source Voltage | 100 | V |
| V_{GS} | Gate-Source Voltage | ± 30 | V |
| I_D | Drain Current-Continuous | 160 | A |
| I_{DM} | Drain Current-Single Pulsed | 430 | A |
| P_D | Total Dissipation @ $T_c=25^\circ C$ | 430 | W |
| T_j | Operating Junction Temperature | -55~175 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~175 | $^\circ C$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|-------------------------------------|------|--------------|
| $R_{th(j-c)}$ | Junction-to-case thermal resistance | 0.35 | $^\circ C/W$ |



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------------|--------------------------------|---|-----|------|------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0V; I _D = 250 μ A | 100 | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D = 250 μ A | 2.5 | 4.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} =10V; I _D = 25A | | 7.0 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±20V; V _{DS} =0V | | ±200 | nA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = V _{DSS} ; V _{GS} = 0V | | 5 | μ A |
| | | V _{DS} = V _{DSS} ; V _{GS} = 0V; T _J = 150°C | | 250 | |
| V _{SD} | Diode forward voltage | I _F = 25A; V _{GS} = 0V | | 1.0 | V |

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