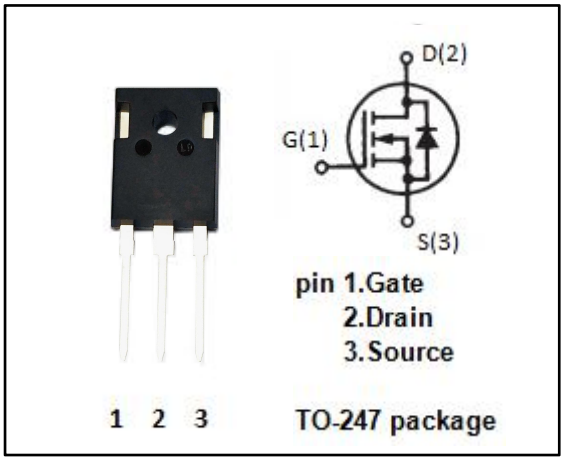
# isc N-Channel MOSFET Transistor IXTX240N075L2

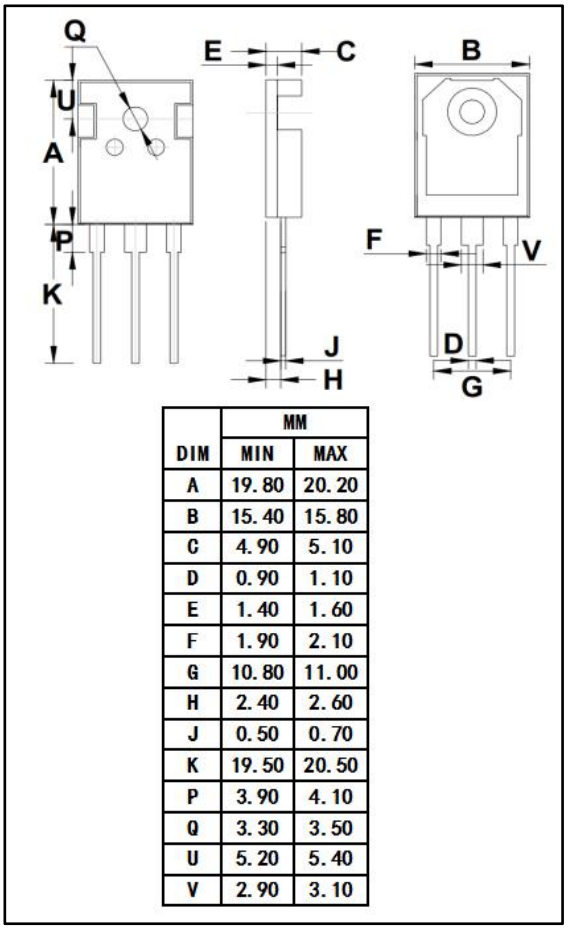
- **FEATURES**
- Drain Source Voltage-
  : $V_{DSS}$= 75V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 7mΩ (Max)
- Fast Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




- **APPLICATIONS**
- Switch-Mode and Resonant-Mode Power Supplies
- DC-DC Converters
- AC and DC Motor Drives
- Robotics and Servo Controls

- **ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)**

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 75 | V |
| $V_{GS}$ | Gate-Source Voltage-Continuous | ±20 | V |
| $I_D$ | Drain Current-Continuous | 240 | A |
| $I_{DM}$ | Drain Current-Single Plused | 720 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 960 | W |
| $T_j$ | Max. Operating Junction Temperature | -55~150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |




| DIM | MM MIN | MM MAX |
|---|---|---|
| A | 19.80 | 20.20 |
| B | 15.40 | 15.80 |
| C | 4.90 | 5.10 |
| D | 0.90 | 1.10 |
| E | 1.40 | 1.60 |
| F | 1.90 | 2.10 |
| G | 10.80 | 11.00 |
| H | 2.40 | 2.60 |
| J | 0.50 | 0.70 |
| K | 19.50 | 20.50 |
| P | 3.90 | 4.10 |
| Q | 3.30 | 3.50 |
| U | 5.20 | 5.40 |
| V | 2.90 | 3.10 |

- **THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance, Junction to Case | 0.13 | ℃/W |

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## • ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYPE | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$= 0; $I_D$=1mA | 75 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$= $V_{GS}$; $I_D$=3mA | 2 | | 4.5 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}$= 10V; $I_D$= 120A | | | 7 | mΩ |
| $I_{GSS}$ | Gate-Body Leakage Current | $V_{GS}$= ±20V;$V_{DS}$= 0 | | | ±200 | nA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$=75V; $V_{GS}$= 0<br>$V_{DS}$=75V; $V_{GS}$= 0;$T_J$=125℃ | | | 10<br>50 | μA |
| $V_{SD}$ | Diode Forward On-voltage | $I_F$= 100A ;$V_{GS}$= 0 | | | 1.5 | V |