

isc P-Channel MOSFET Transistor

IXTH50P085

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 55m\Omega @ V_{GS} = -10V$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

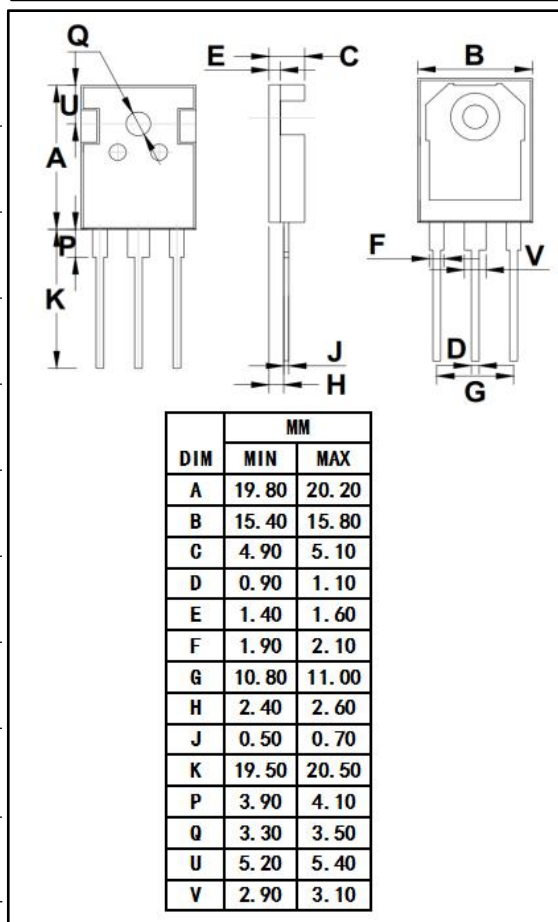
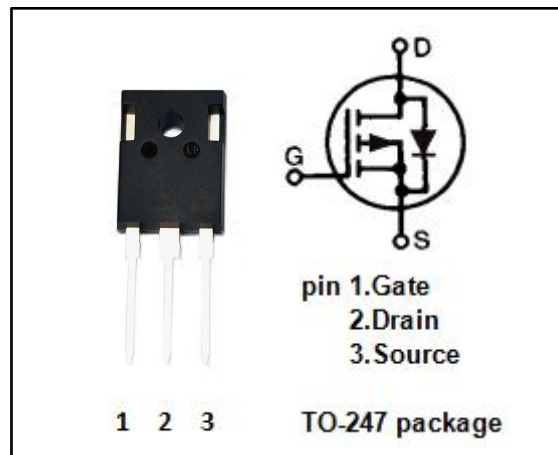
- Switched mode power supplies
- Uninterruptible power supplies

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--------------------------------------|----------|------------|
| V_{DSS} | Drain-Source Voltage | -85 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-Continuous | -50 | A |
| I_{DM} | Drain Current-Single Pulsed | -200 | A |
| P_D | Total Dissipation @ $T_c=25^\circ C$ | 300 | 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 | 0.42 | $^\circ C/W$ |



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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 | -85 | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D = -250uA | -3 | -5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = -10V; I _D = -25A | | 55 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±20V; V _{DS} =0V | | ± 100 | nA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = -68V; V _{GS} = 0V V _{DS} = -68V; V _{GS} = 0V; T _J = 125°C | | -25 -1000 | μ A |
| V _{SD} | Diode forward voltage | I _F = -25A; V _{GS} = 0V | | -3 | V |

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