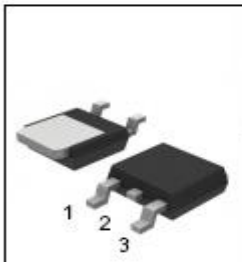
# isc N-Channel MOSFET Transistor IPD60R600C6,IIPD60R600C6

- **FEATURES**
- Static drain-source on-resistance:
  $R_{DS}(on) \leqslant 0.6\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




DPAK

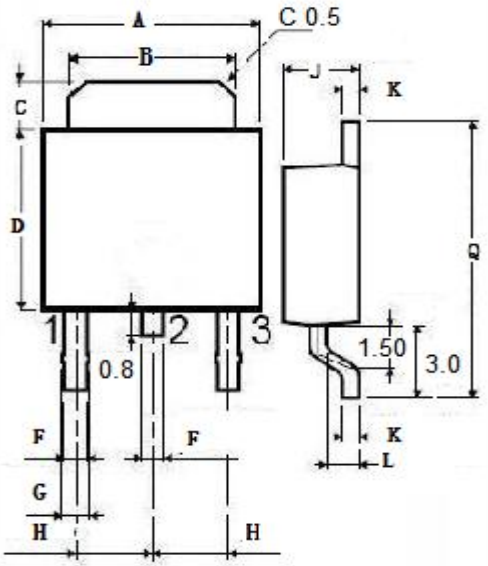
pin 1, Gate
2, Drain
3, Source

TO-252 Package

- **DESCRITION**
- Fast switching

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 600 | V |
| $V_{GS}$ | Gate-Source Voltage | ±20 | V |
| $I_D$ | Drain Current-Continuous | 7.3 | A |
| $I_{DM}$ | Drain Current-Single Pulsed | 19 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 63 | W |
| $T_j$ | Max. Operating Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 6.40 | 6.60 |
| B | 5.20 | 5.40 |
| C | 1.15 | 1.35 |
| D | 5.70 | 6.10 |
| F | 0.65 | |
| G | 0.75 | |
| H | 2.10 | 2.50 |
| J | 2.10 | 2.40 |
| K | 0.40 | 0.60 |
| L | 0.90 | 1.10 |
| Q | 9.90 | 10.1 |

- **THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| Rth(j-c) | Channel-to-case thermal resistance | 2.0 | ℃/W |
| Rth(j-a) | Channel-to-ambient thermal resistance | 62 | ℃/W |



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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| $BV_{DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$=0V; $I_D$=0.25mA | 600 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$=$V_{GS}$; $I_D$=0.2mA | 2.5 | | 3.5 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}$=10V; $I_D$=2.4A | | | 0.6 | Ω |
| $I_{GSS}$ | Gate-Source Leakage Current | $V_{GS}$=20V | | | 0.1 | μA |
| $I_{DSS}$ | Drain-Source Leakage Current | $V_{DS}$=600V; $V_{GS}$= 0V | | | 1 | μA |
| $V_{SD}$ | Diode forward voltage | $I_F$=3A, $V_{GS}$ = 0V | | 0.9 | | V |



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