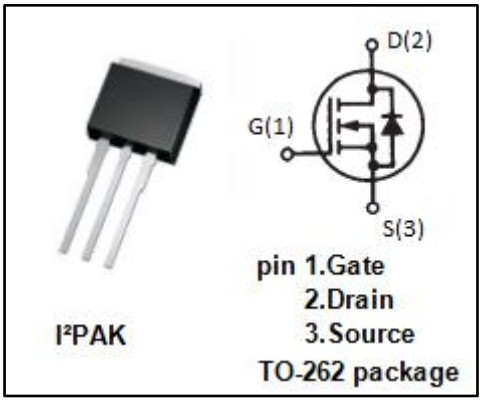
# isc N-Channel MOSFET Transistor IRLI530A




## FEATURES

- Drain Current –$I_D$= 14A@ $T_C$=25℃
- Drain Source Voltage-
  : $V_{DSS}$= 100V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 0.12Ω (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## DESCRIPTION

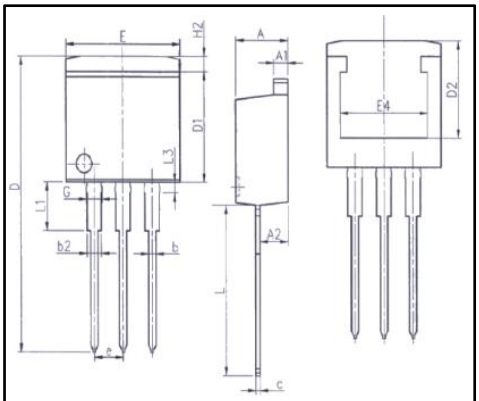
- motor drive, DC-DC converter, power switch and solenoid drive.

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 100 | V |
| $V_{GS}$ | Gate-Source Voltage-Continuous | ±20 | V |
| $I_D$ | Drain Current-Continuous | 9.2 | A |
| $I_{DM}$ | Drain Current-Single Pluse | 49 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 62 | W |
| $T_J$ | Max. Operating Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance, Junction to Case | 2.41 | ℃/W |



| DIM | MM MIN | MM MAX |
|---|---|---|
| A | 4.37 | 4.77 |
| A1 | 1.22 | 1.42 |
| A2 | 2.47 | 2.87 |
| b | 0.7 | 0.97 |
| b2 | 1.17 | 1.42 |
| c | 0.28 | 0.53 |
| D | 23.2 | 24.02 |
| D1 | 8.38 | 8.9 |
| D2 | 6 | / |
| E | 9.9 | 10.39 |
| E4 | 7.3 | / |
| E | 2.54BSC | |
| G | 1.25 | 1.5 |
| H2 | / | 1.31 |
| L | 13.34 | 14.1 |
| L1 | 3.3 | 4.06 |
| L3 | 0.95 | 1.15 |



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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$= 0; $I_D$= 0.25mA | 100 | -- | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$= 5V; $I_D$= 0.25mA | 1.0 | 2.0 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}$= 5V; $I_D$= 7A | -- | 0.12 | Ω |
| $I_{GSS}$ | Gate-Body Leakage Current | $V_{GS}$= ±20V;$V_{DS}$= 0 | -- | ±0.1 | uA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$= 100V; $V_{GS}$= 0 | -- | 10 | uA |
| $V_{SD}$ | Forward On-Voltage | $I_S$= 14A; $V_{GS}$= 0 | -- | 1.5 | V |

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