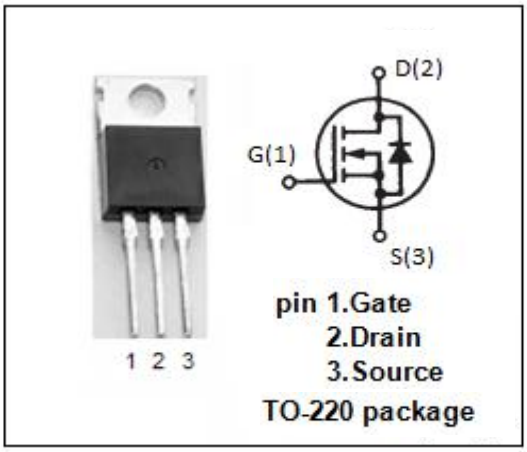
# isc N-Channel MOSFET Transistor 2SK2866

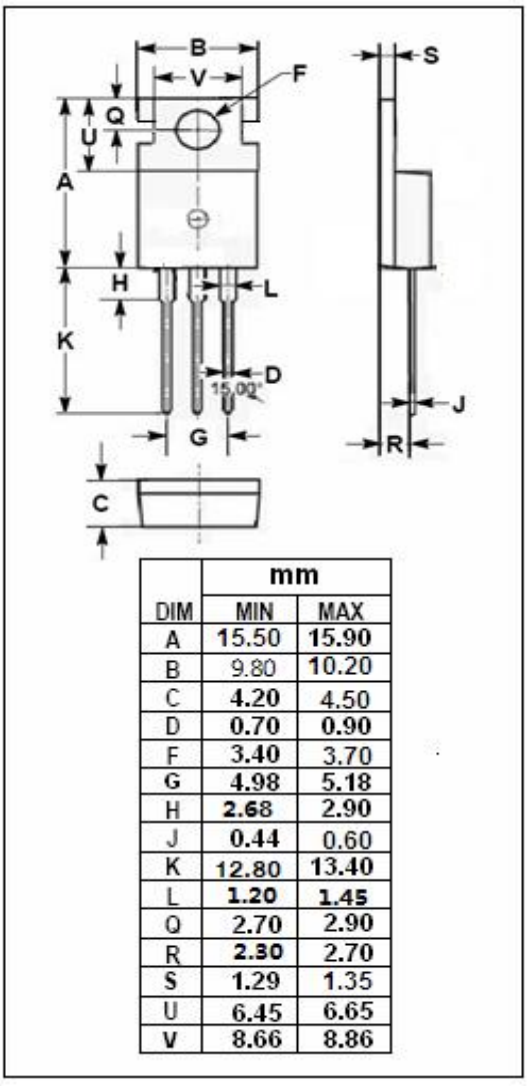



## FEATURES

- Drain Current : $I_D$= 10A@ $T_C$=25℃
- Drain Source Voltage
  : $V_{DSS}$= 600V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 0.75Ω (Max) @$V_{GS}$=10V
- 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.




| DIM | mm MIN | MAX |
|---|---|---|
| A | 15.50 | 15.90 |
| B | 9.80 | 10.20 |
| C | 4.20 | 4.50 |
| D | 0.70 | 0.90 |
| F | 3.40 | 3.70 |
| G | 4.98 | 5.18 |
| H | 2.68 | 2.90 |
| J | 0.44 | 0.60 |
| K | 12.80 | 13.40 |
| L | 1.20 | 1.45 |
| Q | 2.70 | 2.90 |
| R | 2.30 | 2.70 |
| S | 1.29 | 1.35 |
| U | 6.45 | 6.65 |
| V | 8.66 | 8.86 |

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 600 | V |
| $V_{GS}$ | Gate-Source Voltage-Continuous | ±30 | V |
| $I_D$ | Drain Current-Continuous | 10 | A |
| $I_{DM}$ | Drain Current-Single Pluse | 40 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 125 | W |
| $T_J$ | Max. Operating Junction Temperature | -55~150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance, Junction to Case | 1.0 | ℃/W |



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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; $I_D$= 10mA | 600 | -- | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$= 10V; $I_D$= 1mA | 2.0 | 4.0 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}$= 10V; $I_D$= 5.0A | -- | 0.75 | Ω |
| $I_{GSS}$ | Gate-Body Leakage Current | $V_{GS}$= ±25V;$V_{DS}$= 0 | -- | ±10 | uA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$= 600V; $V_{GS}$= 0 | -- | 100 | uA |
| $V_{SD}$ | Forward On-Voltage | $I_S$= 10A; $V_{GS}$= 0 | -- | 1.7 | V |

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