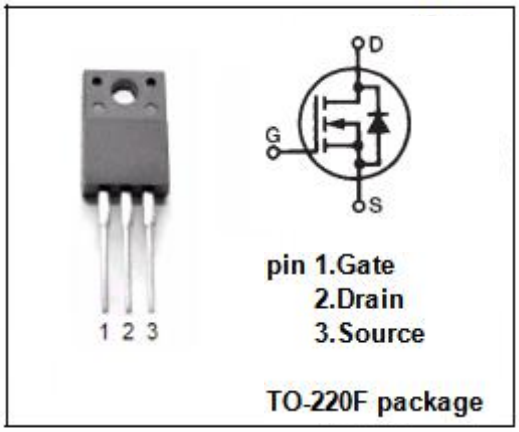
# isc N-Channel MOSFET Transistor 2SK3045

## FEATURES

- Drain Current : $I_D$= 2.5A@ $T_C$=25℃
- Drain Source Voltage
  : $V_{DSS}$= 500V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 4Ω (Max)@ $V_{GS}$= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




## DESCRIPTION

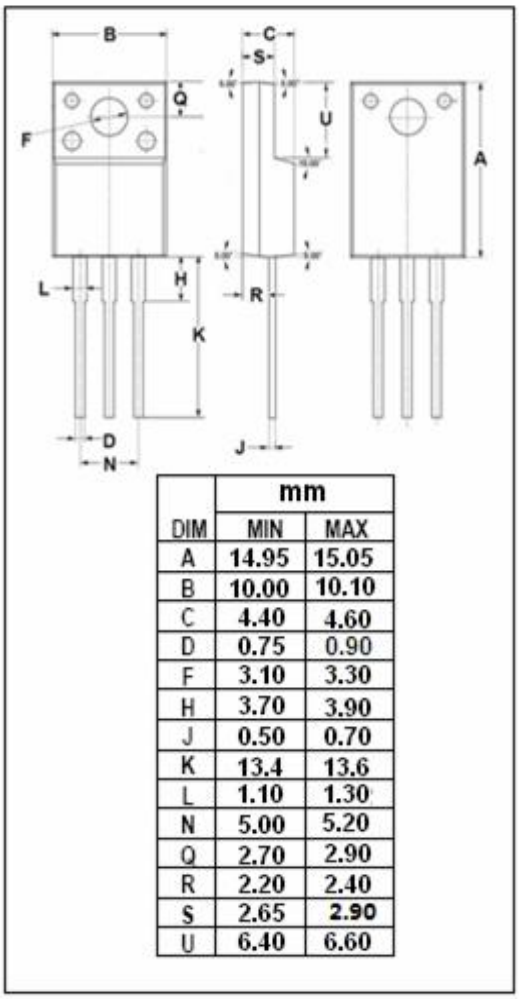
- motor drive, DC-DC converter, power switch and solenoid drive.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 500 | V |
| $V_{GS}$ | Gate-Source Voltage-Continuous | ±30 | V |
| $I_D$ | Drain Current-Continuous | 2.5 | A |
| $I_{DM}$ | Drain Current-Single Pluse | 10 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 30 | 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 | 4.17 | ℃/W |




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 14.95 | 15.05 |
| B | 10.00 | 10.10 |
| C | 4.40 | 4.60 |
| D | 0.75 | 0.90 |
| F | 3.10 | 3.30 |
| H | 3.70 | 3.90 |
| J | 0.50 | 0.70 |
| K | 13.4 | 13.6 |
| L | 1.10 | 1.30 |
| N | 5.00 | 5.20 |
| Q | 2.70 | 2.90 |
| R | 2.20 | 2.40 |
| S | 2.65 | 2.90 |
| U | 6.40 | 6.60 |



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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; $I_D$= 1mA | 500 | -- | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$= 25V; $I_D$= 1mA | 2 | 5 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}$= 10V; $I_D$=1.5A | -- | 4 | Ω |
| $I_{GSS}$ | Gate-Body Leakage Current | $V_{GS}$= ±30V;$V_{DS}$= 0 | -- | ±1 | uA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$= 400V; $V_{GS}$= 0 | -- | 0.1 | mA |
| $V_{SD}$ | Forward On-Voltage | $I_S$=2.5A; $V_{GS}$= 0 | -- | 1.5 | V |

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