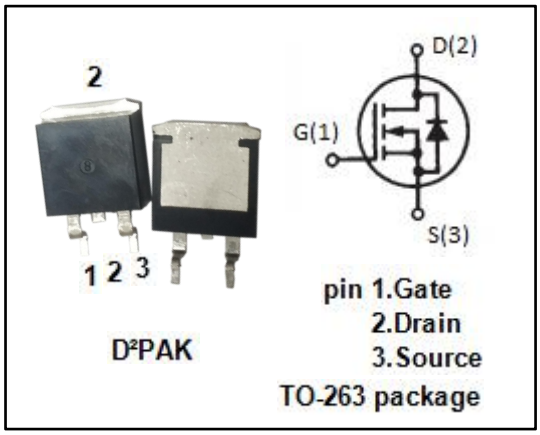
# isc N-Channel MOSFET Transistor 2SK3417B

## FEATURES

- Drain Current : $I_D$= 5.0A@ $T_C$=25℃
- Drain Source Voltage
  : $V_{DSS}$= 500V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 1.8Ω (Max) @ $V_{GS}$= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




## DESCRIPTION

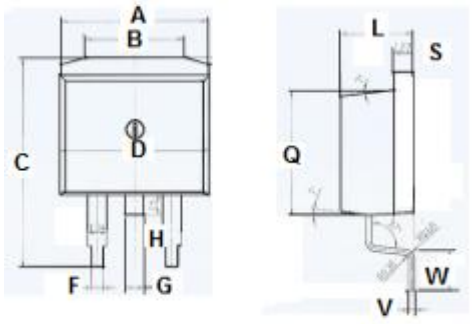
- motor drive, DC-DC converter, power switch and solenoid drive.

## 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 | 5.0 | A |
| $I_{DM}$ | Drain Current-Single Pluse | 20 | A |
| $P_D$ | Total Dissipation @$T_C$=25℃ | 50 | 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 | 2.5 | ℃/W |




| DIM | mm | |
|---|---|---|
| | MIN | MAX |
| A | 9.8 | 10.2 |
| B | 6.6 | 6.8 |
| C | 15.1 | 15.3 |
| D | 9.6 | 10 |
| F | 0.7 | 0.9 |
| G | 1.26 | 1.3 |
| H | 1.2 | 1.45 |
| L | 4.4 | 4.6 |
| Q | 9.2 | 9.3 |
| S | 1.25 | 1.35 |
| V | 0.4 | 0.6 |
| W | 2.6 | 2.8 |



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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 | 500 | -- | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$= 10V; $I_D$= 1mA | 3.0 | 5.0 | V |
| $R_{DS(on)1}$ | Drain-Source On-Resistance | $V_{GS}$= 10V; $I_D$= 2.5A | -- | 1.8 | Ω |
| $I_{GSS}$ | Gate-Body Leakage Current | $V_{GS}$= ±25V;$V_{DS}$= 0 | -- | ±10 | uA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$=500V; $V_{GS}$= 0 | -- | 100 | uA |
| $V_{SD}$ | Forward On-Voltage | $I_S$= 5A; $V_{GS}$= 0 | -- | 1.7 | V |

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