

isc N-Channel MOSFET Transistor
BUZ11
FEATURES

- Drain Current $-I_D = 30A @ T_C = 25^\circ C$
- Drain Source Voltage $-V_{DSS} = 50V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(\text{on})} = 0.04\Omega(\text{Max}) @ V_{GS} = 10V$

DESCRIPTION

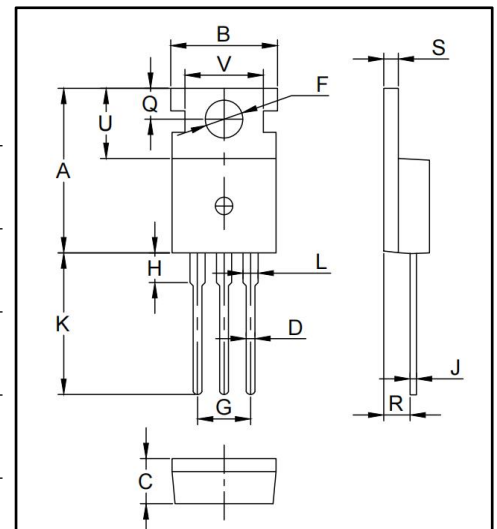
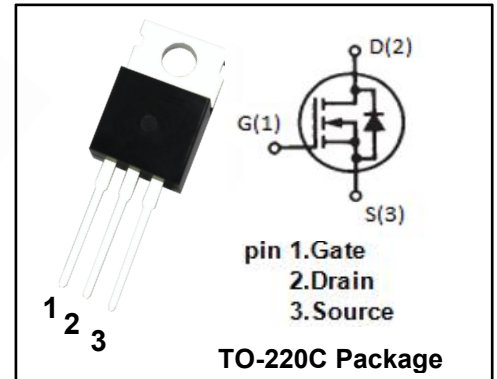
- Motor control and drive
- Battery management
- General Power Switching

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage | 50 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 20 | V |
| I_D | Continuous Drain Current | 30 | A |
| I_{DM} | Drain Current(Pulse) | 120 | A |
| P_D | Total Dissipation @ $T_C = 25^\circ C$ | 75 | W |
| T_J | Max. Operating Junction Temperature | -55~150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ C$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|------|--------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.67 | $^\circ C/W$ |



| DIM | mm | | |
|-----|-------|-------|-------|
| | MIN | TYP. | MAX |
| A | 15.50 | 15.70 | 15.90 |
| B | 9.80 | 10.00 | 10.20 |
| C | 4.20 | 4.35 | 4.50 |
| D | 0.70 | 0.80 | 0.90 |
| F | 3.40 | 3.55 | 3.70 |
| G | 4.98 | 5.08 | 5.18 |
| H | 2.68 | 2.79 | 2.90 |
| J | 0.44 | 0.52 | 0.60 |
| K | 12.80 | 13.10 | 13.40 |
| L | 1.20 | 1.32 | 1.45 |
| Q | 2.70 | 2.80 | 2.90 |
| R | 2.30 | 2.50 | 2.70 |
| S | 1.29 | 1.32 | 1.35 |
| U | 6.45 | 6.55 | 6.65 |
| V | 8.66 | 8.76 | 8.86 |

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ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|---------------------------------|--|-----|------|------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 0.25mA | 50 | -- | -- | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{GS} = V _{DS} ; I _D = 1mA | 2.1 | -- | 4.0 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =19A | -- | -- | 0.04 | Ω |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±20V; V _{DS} = 0 | -- | -- | ±100 | nA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} = 50V; V _{GS} = 0 | -- | -- | 1 | uA |
| V _{SD} | Forward On-Voltage | I _S = 60A; V _{GS} = 0 | -- | -- | 1.8 | V |

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