

isc N-Channel MOSFET Transistor
FQP22N30
FEATURES

- Drain Current $-I_D=21A@ T_C=25^\circ C$
- Drain Source Voltage $-V_{DSS}=300V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(\text{on})}=0.16\Omega(\text{Max})@V_{GS}=10V$

DESCRIPTION

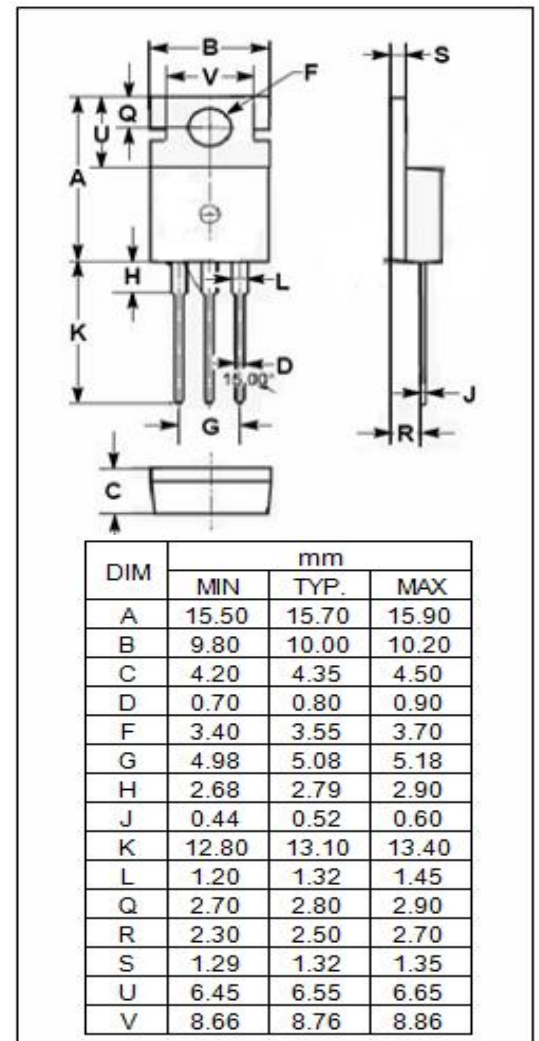
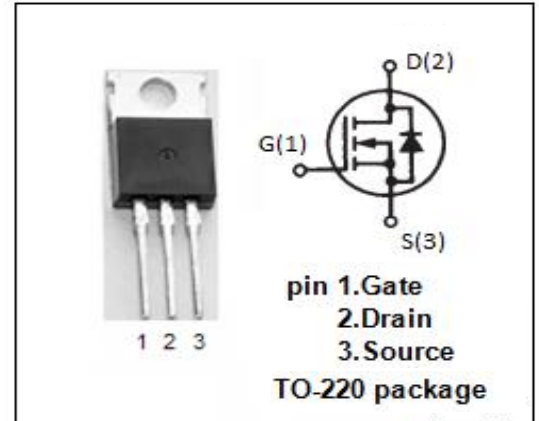
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--------------------------------------|----------|------------|
| V_{DSS} | Drain-Source Voltage | 300 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 30 | V |
| I_D | Drain Current-Continuous | 21 | A |
| I_{DM} | Drain Current-Single Pluse | 84 | A |
| P_D | Total Dissipation @ $T_C=25^\circ C$ | 170 | W |
| T_J | Max. Operating Junction Temperature | 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 | 0.74 | $^\circ C/W$ |



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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|----------------------|---------------------------------|---|-----|------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 0.25mA | 300 | -- | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D = 0.25mA | 3.0 | 5.0 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =10.5A | -- | 0.16 | Ω |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±30V; V _{DS} = 0 | -- | ±100 | nA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} =300V; V _{GS} = 0 | -- | 1 | uA |
| V _{SD} | Forward On-Voltage | I _S =21A; V _{GS} = 0 | -- | 1.5 | V |

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