

isc N-Channel MOSFET Transistor

FCB070N65S3

D(2)

FEATURES

- Drain Current : I_D= 44A@ T_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage
- : V_{DSS}= 650V(Min)
- Static Drain-Source On-Resistance
- : R_{DS(on)} = 70m Ω (Max) @ V_{GS}= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

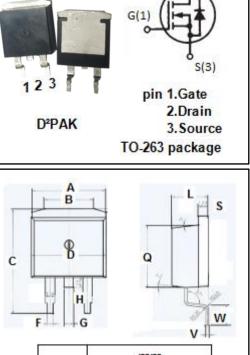
• motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

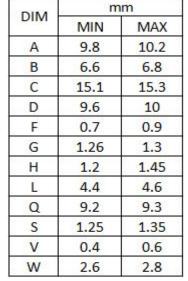
| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|-------|------|
| V _{DSS} | Drain-Source Voltage | 650 | V |
| V _{GS} | Gate-Source Voltage-Continuous | ±30 | V |
| ID | Drain Current-Continuous 44 | | A |
| IDM | Drain Current-Single Pluse | 110 | A |
| P _D | Total Dissipation @T _c =25°C 312 | | W |
| TJ | Max. Operating Junction Temperature -55~150 | | °C |
| T _{stg} | Storage Temperature -55~150 | | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | МАХ | UNIT |
|---------------------|--------------------------------------|-----|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 0.4 | °C/W |



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isc website: <u>www.iscsemi.com</u>

¹ *isc & iscsemi* is registered trademark



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ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}C$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | МАХ | UNIT |
|----------------------|---------------------------------|--|-----|------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 1mA | 650 | - | V |
| V _{GS} (th) | Gate Threshold Voltage | V_{DS} = V_{GS} ; I _D = 4.4mA | 2.5 | 4.5 | V |
| R _{DS} (on) | Drain-Source On-Resistance | V _{GS} = 10V; I _D = 22A | - | 70 | mΩ |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±30V;V _{DS} =0 | - | ±0.1 | uA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} = 650V; V _{GS} = 0 | - | 1 | uA |
| V _{SD} | Forward On-Voltage | I _S = 22A; V _{GS} = 0 | - | 1.2 | V |

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