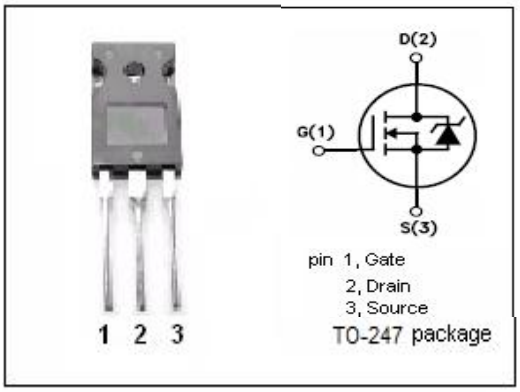
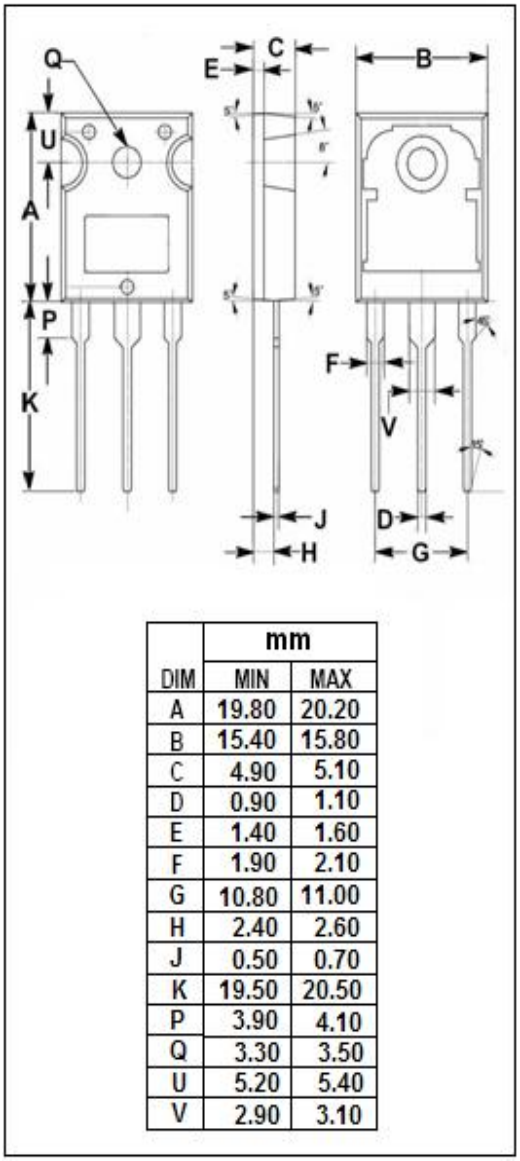
# isc N-Channel MOSFET Transistor FCH067N65S3




- **FEATURES**
- With TO-247 packaging
- High speed switching
- Very high commutation ruggedness
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

- **APPLICATIONS**
- PFC stages
- Power supply
- Switching applications




| DIM | mm MIN | MAX |
|---|---|---|
| A | 19.80 | 20.20 |
| B | 15.40 | 15.80 |
| C | 4.90 | 5.10 |
| D | 0.90 | 1.10 |
| E | 1.40 | 1.60 |
| F | 1.90 | 2.10 |
| G | 10.80 | 11.00 |
| H | 2.40 | 2.60 |
| J | 0.50 | 0.70 |
| K | 19.50 | 20.50 |
| P | 3.90 | 4.10 |
| Q | 3.30 | 3.50 |
| U | 5.20 | 5.40 |
| V | 2.90 | 3.10 |

- **ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)**

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | 650 | V |
| $V_{GSS}$ | Gate-Source Voltage | ±30 | V |
| $I_D$ | Drain Current-Continuous@$T_C$=25℃<br>$T_C$=100℃ | 44<br>28 | A |
| $I_{DM}$ | Drain Current-Single Pulsed | 110 | A |
| $P_D$ | Total Dissipation | 312 | W |
| $T_j$ | Operating Junction Temperature | -55~150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |

- **THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| Rth(ch-c) | Channel-to-case thermal resistance | 0.4 | ℃/W |
| Rth(ch-a) | Channel-to-ambient thermal resistance | 40 | ℃/W |

# isc N-Channel MOSFET Transistor FCH067N65S3

## ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| $BV_{DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$=0V; $I_D$= 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 | | 59 | 67 | mΩ |
| $I_{GSS}$ | Gate-Source Leakage Current | $V_{GS}$= ±30V;$V_{DS}$= 0V | | | ±0.1 | μA |
| $I_{DSS}$ | Drain-Source Leakage Current | $V_{DS}$= 500V; $V_{GS}$= 0V;Tc=25℃<br>$V_{DS}$= 500V; $V_{GS}$= 0V;Tc=125℃ | | | 1<br>100 | μA |
| $V_{SDF}$ | Diode forward voltage | $I_{SD}$=22A, $V_{GS}$ = 0 V | | | 1.2 | V |