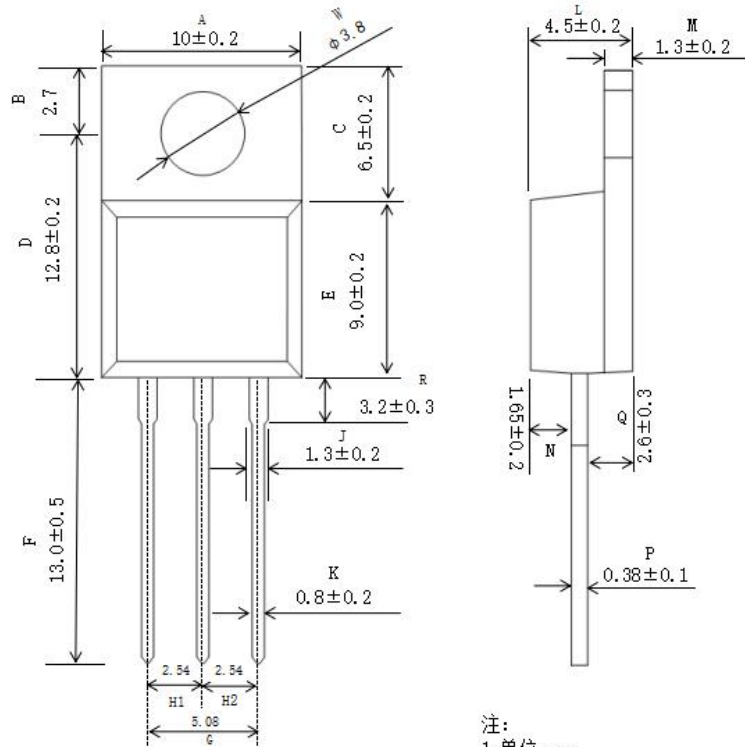
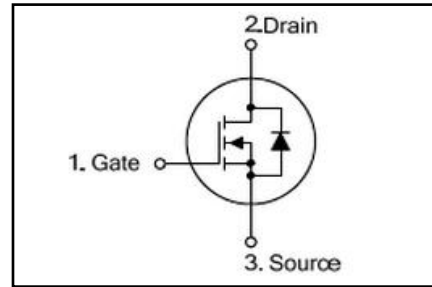


◆ **Features:**

- ◇ Fast switching speed  
开关速度快
- ◇ Low gate charge  
低门充电
- ◇ High power and current handling capability  
高功率和电流处理能力
- ◇ RoHS compliant  
符合 RoHS 标准

◆ **Applications**

- ◇ DC to DC converters  
直流到直流转换
- ◇ Synchronous Rectification  
同步整流



注：  
1. 单位：mm  
2. 未注公差：±0.2mm  
(除非另有说明)

### ◆ Absolute Maximum Ratings (Tc=25°C)

| Symbol           | Parameters                                       | Ratings    | Unit |
|------------------|--|------------|------|
| V <sub>DSS</sub> | Drain-Source Voltage<br>漏源电压                     | <b>60</b>  | V    |
| V <sub>GS</sub>  | Gate-Source Voltage-Continuous<br>栅源电压           | <b>±20</b> | V    |
| I <sub>D</sub>   | Drain Current-Continuous (Note 2)<br>漏极持续电流      | <b>150</b> | A    |
| I <sub>DM</sub>  | Drain Current-Single Plused (Note 1)<br>漏极单次脉冲电流 | <b>600</b> | A    |
| P <sub>D</sub>   | Power Dissipation (Note 2)<br>功率损耗               | <b>225</b> | W    |
| T <sub>j</sub>   | Max.Operating junction temperature<br>最大结温       | <b>150</b> | °C   |

### ◆ Electrical characteristics (Tc=25°C unless otherwise noted)

| Symbol                        | Parameters  | Min        | Typ        | Max         | Units | Conditions   |
|-------------------------------|---|------------|------------|-------------|-------|--|
| <b>Static Characteristics</b> |   |            |            |             |       |  |
| B <sub>VDS</sub>              | Drain-Source Breakdown Voltage<br>漏极击穿电压 (Note 1) | <b>60</b>  | --         | --          | V     | I <sub>D</sub> =250μA, V <sub>GS</sub> =0V               |
| V <sub>GS(th)</sub>           | Gate Threshold Voltage<br>栅极开启电压                  | <b>2.0</b> | --         | <b>4.0</b>  | V     | V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA |
| R <sub>DS(on)</sub>           | Drain-Source On-Resistance<br>漏源导通电阻              | --         | <b>2.6</b> | <b>3.0</b>  | mΩ    | V <sub>GS</sub> =10V, I <sub>D</sub> =20A                |
| I <sub>GSS</sub>              | Gate-Body Leakage Current<br>栅极漏电流                | --         | --         | <b>±100</b> | nA    | V <sub>GS</sub> =±25V, V <sub>DS</sub> =0                |
| I <sub>DSS</sub>              | Zero Gate Voltage Drain Current<br>零栅极电压漏极电流      | --         | --         | <b>1</b>    | μA    | V <sub>DS</sub> =60V, V <sub>GS</sub> =0                 |
| g <sub>fs</sub>               | Forward Transconductance<br>正向跨导                  | --         | <b>15</b>  | --          | S     | V <sub>DS</sub> =10V, I <sub>D</sub> =5A                 |

| Switching Characteristics |  |    |             |             |               |   |
|---------------------------|--|----|-------------|-------------|---------------|---|
| $T_{d(on)}$               | Turn-On Delay Time<br>开启延迟时间   | -- | <b>25</b>   | --          | ns            | $V_{DD}=50V, I_D=10A,$<br>$R_G=5\Omega$     |
| $T_r$                     | Rise Time<br>上升时间  | -- | <b>15</b>   | --          | ns            |   |
| $T_{d(off)}$              | Turn-Off Delay Time<br>关闭延迟时间  | -- | <b>55</b>   | --          | ns            |   |
| $T_f$                     | Fall Time<br>下降时间  | -- | <b>45</b>   | --          | ns            |   |
| $Q_g$                     | Total Gate Charge<br>栅极总电荷   | -- | <b>60</b>   | --          | nC            | $V_{DS}=50V,$<br>$V_{GS}=10V,$<br>$I_D=75A$ |
| $Q_{gs}$                  | Gate-Source Charge<br>栅源极电荷  | -- | <b>12</b>   | --          | nC            |   |
| $Q_{gd}$                  | Gate-Drain Charge<br>栅漏极电荷   | -- | <b>15</b>   | --          | nC            |   |
| Dynamic Characteristics   |  |    |             |             |               |   |
| $C_{iss}$                 | Input Capacitance<br>输入电容  | -- | <b>5550</b> | --          | pF            | $V_{DS}=25V, V_{GS}=0,$<br>$f=1MHz$         |
| $C_{oss}$                 | Output Capacitance<br>输出电容   | -- | <b>1350</b> | --          | pF            |   |
| $C_{rss}$                 | Reverse Transfer Capacitance<br>反向传输电容                                   | -- | <b>55</b>   | --          | pF            |   |
| $I_S$                     | Continuous Drain-Source Diode<br>Forward Current (Note 2)<br>二极管导通正向持续电流 | -- | --          | <b>150</b>  | A             |   |
| $V_{SD}$                  | Diode Forward On-Voltage<br>二极管正向导通电压                                    | -- | --          | <b>1.3</b>  | V             | $I_S=30A, V_{GS}=0$                         |
| $R_{th(j-c)}$             | Thermal Resistance, Junction to Case<br>结到外壳的热阻                          | -- | --          | <b>0.49</b> | $^{\circ}C/W$ |   |

Note 1: Repetitive Rating : Pulse width limited by maximum junction temperature

Note 2: Pulse test: PW ≤ 300us , duty cycle ≤ 2%.

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