

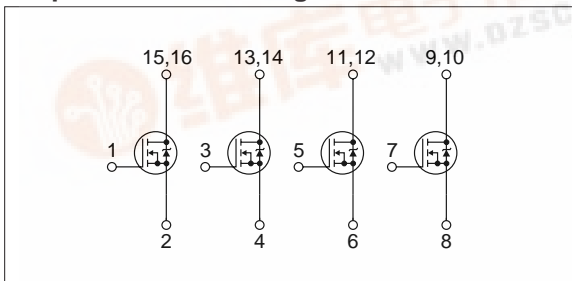
### Absolute maximum ratings

(Ta=25°C)

| Symbol                | Ratings                          | Unit |
|-----------------------|----------------------------------|------|
| V <sub>DSS</sub>      | 100                              | V    |
| V <sub>GSS</sub>      | ±20                              | V    |
| I <sub>D</sub>        | ±2                               | A    |
| I <sub>D(pulse)</sub> | ±5 (PW≤100μs, Du≤1%)             | A    |
| E <sub>AS</sub> *     | 2.7                              | mJ   |
| P <sub>T</sub>        | 3 (Ta=25°C, 4-circuit operation) | W    |
| T <sub>ch</sub>       | 150                              | °C   |
| T <sub>stg</sub>      | -40 to +150                      | °C   |

\* : V<sub>DD</sub>=25V, L=1mH, I<sub>L</sub>=2A, unclamped, R<sub>G</sub>=50Ω, see Fig. E on page 15.

### Equivalent circuit diagram



(Ta=25°C)

| Symbol               | Specification |      |      | Unit | Conditions                                  |
|----------------------|---------------|------|------|------|---|
|                      | min           | typ  | max  |      |   |
| V <sub>(BR)DSS</sub> | 100           |      |      | V    | I <sub>D</sub> =100μA, V <sub>GS</sub> =0V  |
| I <sub>GSS</sub>     |               |      | ±100 | nA   | V <sub>GS</sub> =±20V                       |
| I <sub>DSS</sub>     |               |      | 100  | μA   | V <sub>DS</sub> =100V, V <sub>GS</sub> =0V  |
| V <sub>TH</sub>      | 1.0           |      | 2.0  | V    | V <sub>DS</sub> =10V, I <sub>D</sub> =250μA |
| R <sub>e(yfs)</sub>  | 1.5           |      |      | S    | V <sub>DS</sub> =10V, I <sub>D</sub> =1.0A  |
| R <sub>DS(ON)</sub>  |               | 0.60 | 0.80 | Ω    | V <sub>GS</sub> =10V, I <sub>D</sub> =1.0A  |
|                      |               | 0.75 | 0.95 | Ω    | V <sub>GS</sub> =4V, I <sub>D</sub> =1.0A   |
| C <sub>iss</sub>     |               | 160  |      | pF   | V <sub>DS</sub> =25V,                       |
| C <sub>oss</sub>     |               | 40   |      | pF   | f=1.0MHz,                                   |
| C <sub>rss</sub>     |               | 10   |      | pF   | V <sub>GS</sub> =0V                         |
| t <sub>d(on)</sub>   |               | 7    |      | ns   | I <sub>D</sub> =1A, V <sub>DD</sub> ≐50V,   |
| t <sub>r</sub>       |               | 20   |      | ns   | R <sub>L</sub> =50Ω,                        |
| t <sub>d(off)</sub>  |               | 35   |      | ns   | V <sub>GS</sub> =10V,                       |
| t <sub>f</sub>       |               | 30   |      | ns   | see Fig. 3 on page 16.                      |
| V <sub>SD</sub>      |               | 1.0  | 1.5  | V    | I <sub>SD</sub> =2A, V <sub>GS</sub> =0V    |
| t <sub>rr</sub>      |               | 140  |      | ns   | I <sub>SD</sub> =±100mA                     |

### Characteristic curves