

Absolute maximum ratings

(Ta=25°C)

| Symbol | Ratings | Unit |
|-----------------------|---|------------------|
| V _{DSS} | 100 | V |
| V _{GSS} | ±20 | V |
| I _D | ±4 | A |
| I _{D(pulse)} | ±8 (PW≤1ms, duty≤1%) | A |
| E _{AS} * | 15 | mJ |
| P _T | 5 (Ta=25°C, with all circuits operating, without heatsink) | W |
| | 35 (Tc=25°C, with all circuits operating, with infinite heatsink) | |
| θ _{j-a} | 25 (Junction-Air, Ta=25°C, with all circuits operating) | °C/W |
| θ _{j-c} | 3.57 (Junction-Case, Tc=25°C, with all circuits operating) | °C/W |
| V _{ISO} | 1000 (Between fin and lead pin, AC) | V _{rms} |
| T _{ch} | 150 | °C |
| T _{stg} | -40 to +150 | °C |

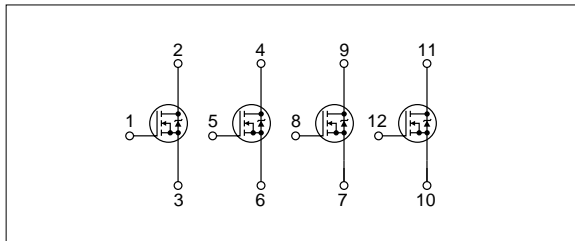
* : V_{DD}=20V, L=1mH, I_b=5A, unclamped, R_G=50Ω, see Fig. E on page 15.

Electrical characteristics

(Ta=25°C)

| Symbol | Specification | | | Unit | Conditions |
|----------------------|---------------|-----|------|------|---|
| | min | typ | max | | |
| V _{(BR)DSS} | 100 | | | V | I _D =250μA, V _{GS} =0V |
| I _{GSS} | | | ±500 | nA | V _{GS} =±20V |
| I _{DSS} | | | 250 | μA | V _{DS} =100V, V _{GS} =0V |
| V _{TH} | 2.0 | | 4.0 | V | V _{DS} =10V, I _D =250μA |
| R _{e(yfs)} | 1.0 | 1.5 | | S | V _{DS} =10V, I _D =2A |
| R _{DS(ON)} | | 0.5 | 0.6 | Ω | V _{GS} =10V, I _D =2A |
| C _{iss} | | 180 | | pF | V _{DS} =25V, f=1.0MHz, V _{GS} =0V |
| C _{oss} | | 82 | | pF | |
| td(on) | | 15 | | ns | I _D =2A, V _{DD} ≐50V, R _L =25Ω, V _{GS} =10V, see Fig. 3 on page 16. |
| tr | | 20 | | ns | |
| td(off) | | 30 | | ns | |
| tf | | 10 | | ns | |
| V _{SD} | | 1.1 | 1.5 | V | I _{SD} =4A, V _{GS} =0V |
| trr | | 250 | | ns | I _{SD} =±100mA |

Equivalent circuit diagram



Characteristic curves