

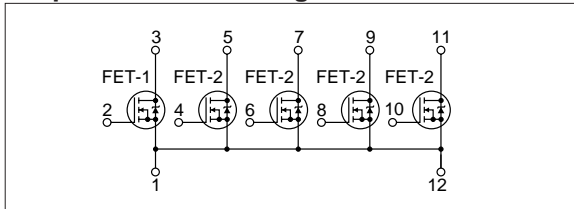
Absolute maximum ratings

($T_a=25^\circ\text{C}$)

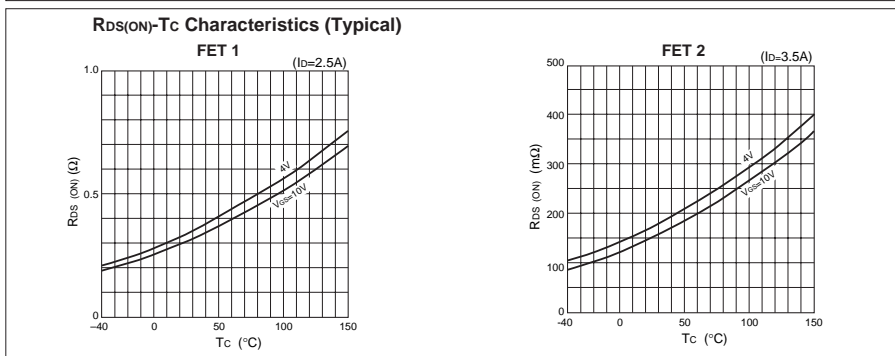
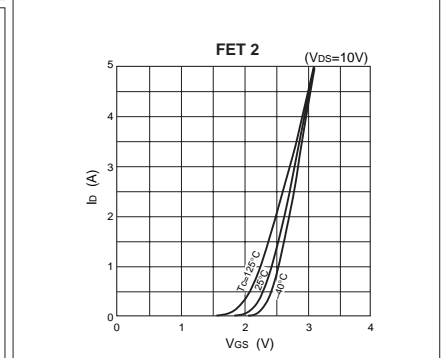
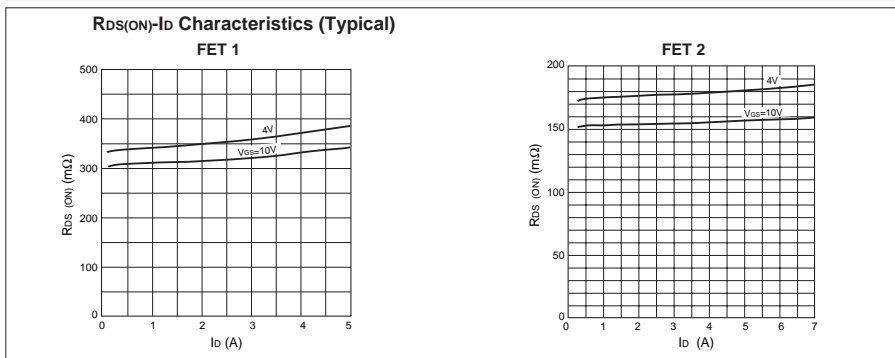
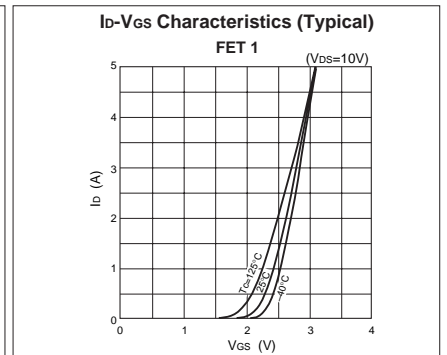
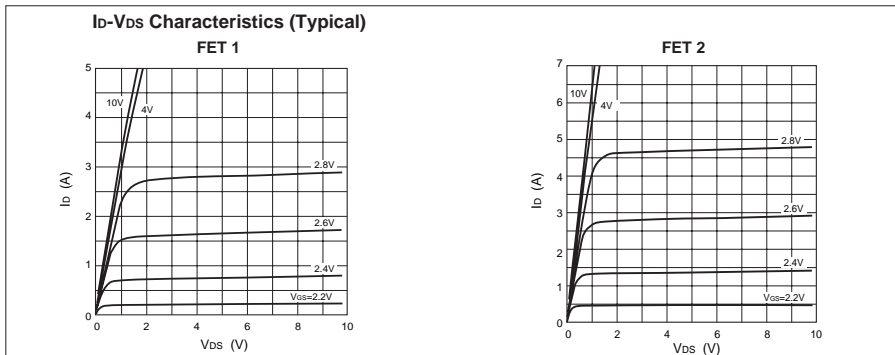
| Symbol | Ratings | | Unit |
|----------------|--|----------|---------------------------|
| | FET 1 | FET 2 | |
| V_{DSS} | 150 | | V |
| V_{GSS} | +20, -10 | | V |
| I_D | ± 5 | ± 7 | A |
| I_D (pulse)* | ± 10 | ± 15 | A |
| P_T | 5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink) | | W |
| | 35 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink) | | W |
| θ_{j-a} | 25 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating) | | $^\circ\text{C}/\text{W}$ |
| θ_{j-c} | 3.57 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating) | | $^\circ\text{C}/\text{W}$ |
| V_{ISO} | 1000 (Between fin and lead pin, AC) | | Vrms |
| T_{ch} | 150 | | $^\circ\text{C}$ |
| T_{stg} | -40 to +150 | | $^\circ\text{C}$ |

* $PW \leq 100\mu\text{s}$, $duty \leq 50\%$

Equivalent circuit diagram



Characteristic curves



Electrical characteristics

($T_a=25^\circ\text{C}$)

| Symbol | FET 1 | | | | | FET 2 | | | | |
|---------------|---------------|-----|-----|------------------|---|---------------|-----|-----|------------------|---|
| | Specification | | | Unit | Conditions | Specification | | | Unit | Conditions |
| | min | typ | max | | | min | typ | max | | |
| $V_{(BR)DSS}$ | 150 | | | V | $I_D=100\mu\text{A}, V_{GS}=0\text{V}$ | 150 | | | V | $I_D=100\mu\text{A}, V_{GS}=0\text{V}$ |
| I_{GSS} | | | 100 | nA | $V_{GS}=20\text{V}$ | | | 100 | nA | $V_{GS}=20\text{V}$ |
| I_{DSS} | | | 100 | μA | $V_{DS}=150\text{V}, V_{GS}=0\text{V}$ | | | 100 | μA | $V_{DS}=150\text{V}, V_{GS}=0\text{V}$ |
| V_{TH} | 1.0 | | 2.0 | V | $V_{DS}=10\text{V}, I_D=250\mu\text{A}$ | 1.0 | | 2.0 | V | $V_{DS}=10\text{V}, I_D=250\mu\text{A}$ |
| $R_{e(yfs)}$ | 3 | 5.5 | | S | $V_{DS}=10\text{V}, I_D=2.5\text{A}$ | 4 | 9 | | S | $V_{DS}=10\text{V}, I_D=3.5\text{A}$ |
| $R_{DS(ON)}$ | | 330 | 440 | $\text{m}\Omega$ | $V_{GS}=10\text{V}, I_D=2.5\text{A}$ | | 150 | 200 | $\text{m}\Omega$ | $V_{GS}=10\text{V}, I_D=3.5\text{A}$ |
| | | 370 | 480 | $\text{m}\Omega$ | $V_{GS}=4\text{V}, I_D=2.5\text{A}$ | | 170 | 230 | $\text{m}\Omega$ | $V_{GS}=4\text{V}, I_D=3.5\text{A}$ |
| C_{iss} | | 380 | | pF | $V_{DS}=10\text{V}$ | | 870 | | pF | $V_{DS}=10\text{V}$ |
| C_{oss} | | 95 | | pF | $f=1.0\text{MHz}$ | | 320 | | pF | $f=1.0\text{MHz}$ |
| C_{rss} | | 25 | | pF | $V_{GS}=0\text{V}$ | | 210 | | pF | $V_{GS}=0\text{V}$ |
| $t_{d(on)}$ | | 25 | | ns | $I_D=2.5\text{A}$ | | 25 | | ns | $I_D=3.5\text{A}$ |
| t_r | | 50 | | ns | $V_{DD}\div 70\text{V}$ | | 55 | | ns | $V_{DD}\div 70\text{V}$ |
| $t_{d(off)}$ | | 55 | | ns | $R_L=28\Omega$ | | 80 | | ns | $R_L=20\Omega$ |
| t_f | | 40 | | ns | $V_{GS}=5\text{V}$ | | 50 | | ns | $V_{GS}=5\text{V}$ |
| V_{SD} | | 1.1 | 1.5 | V | $I_{SD}=5\text{A}, V_{GS}=0\text{V}$ | | 1.0 | 1.5 | V | $I_{SD}=7\text{A}, V_{GS}=0\text{V}$ |
| t_{rr} | | 180 | | ns | $I_F=\pm 100\text{mA}$ | | 500 | | ns | $I_F=\pm 100\text{mA}$ |

Characteristic curves

