

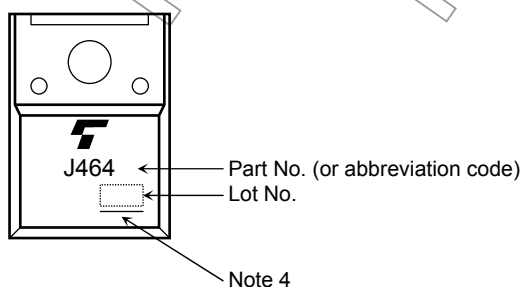
Electrical Characteristics (Ta = 25°C)

| Characteristics | | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---|---------------|---------------|--|------|------|----------|---------------|
| Gate leakage current | | I_{GSS} | $V_{GS} = \pm 16\text{ V}, V_{DS} = 0\text{ V}$ | — | — | ± 10 | μA |
| Drain cut-off current | | I_{DSS} | $V_{DS} = -100\text{ V}, V_{GS} = 0\text{ V}$ | — | — | -100 | μA |
| Drain-source breakdown voltage | | $V_{(BR)DSS}$ | $I_D = -10\text{ mA}, V_{GS} = 0\text{ V}$ | -100 | — | — | V |
| Gate threshold voltage | | V_{th} | $V_{DS} = -10\text{ V}, I_D = -1\text{ mA}$ | -0.8 | — | -2.0 | V |
| Drain-source ON resistance | | $R_{DS(ON)}$ | $V_{GS} = -10\text{ V}, I_D = -9\text{ A}$ | — | 64 | 90 | m Ω |
| | | | $V_{GS} = -4\text{ V}, I_D = -9\text{ A}$ | — | 85 | 120 | |
| Forward transfer admittance | | $ Y_{fs} $ | $V_{DS} = -10\text{ V}, I_D = -9\text{ A}$ | 7 | 15 | — | S |
| Input capacitance | | C_{iss} | $V_{DS} = -10\text{ V}, V_{GS} = 0\text{ V}, f = 1\text{ MHz}$ | — | 2900 | — | pF |
| Reverse transfer capacitance | | C_{rss} | | — | 480 | — | pF |
| Output capacitance | | C_{oss} | | — | 1000 | — | pF |
| Switching time | Rise time | t_r | | — | 25 | — | ns |
| | Turn-on time | t_{on} | | — | 45 | — | |
| | Fall time | t_f | | — | 25 | — | |
| | Turn-off time | t_{off} | | — | 170 | — | |
| Total gate charge (gate-source plus gate-drain) | | Q_g | $V_{DD} \approx -80\text{ V}, V_{GS} = -10\text{ V}, I_D = -18\text{ A}$ | — | 140 | — | nC |
| Gate-source charge | | Q_{gs} | | — | 90 | — | nC |
| Gate-drain ("miller") charge | | Q_{gd} | | — | 50 | — | nC |

Source-Drain Ratings and Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--|-----------|--|-----|------|-----|---------------|
| Continuous drain reverse current (Note 1) | I_{DR} | — | — | — | -18 | A |
| Pulse drain reverse current (Note 1) | I_{DRP} | — | — | — | -72 | A |
| Forward voltage (diode) | V_{DSF} | $I_{DR} = -18\text{ A}, V_{GS} = 0\text{ V}$ | — | — | 1.7 | V |
| Reverse recovery time | t_{rr} | $I_{DR} = -18\text{ A}, V_{GS} = 0\text{ V}$ | — | 220 | — | ns |
| Reverse recovery charge | Q_{rr} | $dI_{DR}/dt = 50\text{ A}/\mu\text{s}$ | — | 0.97 | — | μC |

Marking

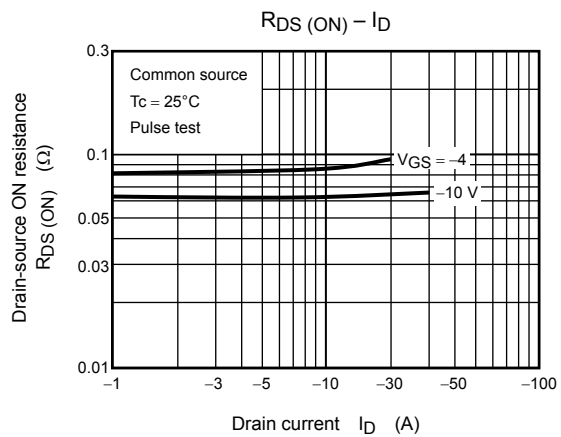
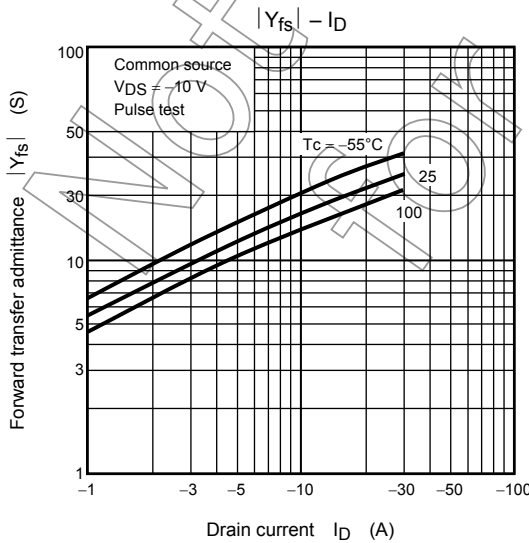
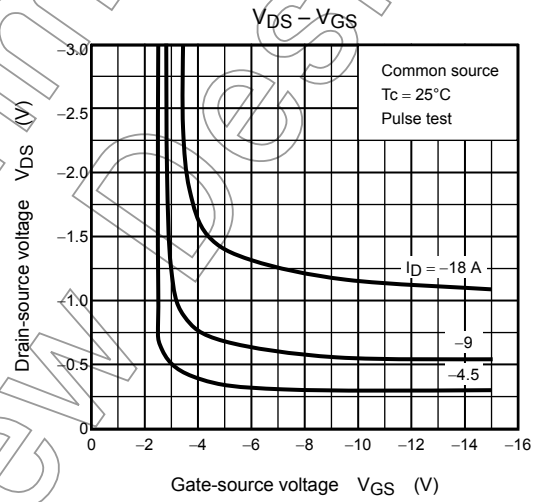
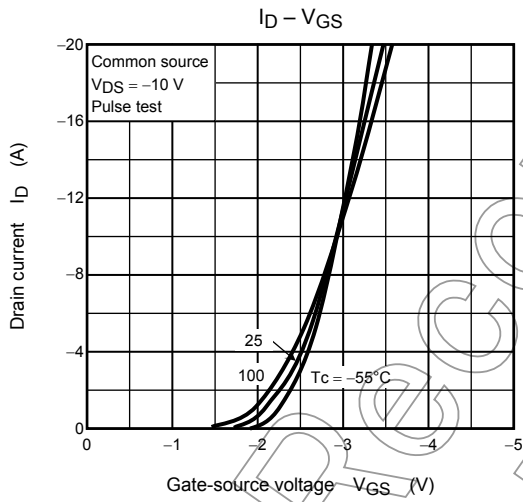
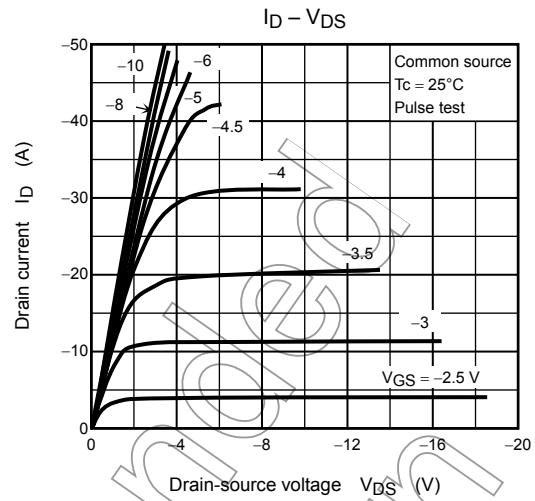
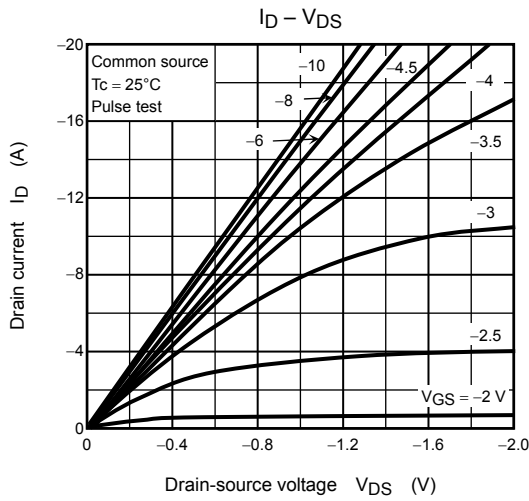


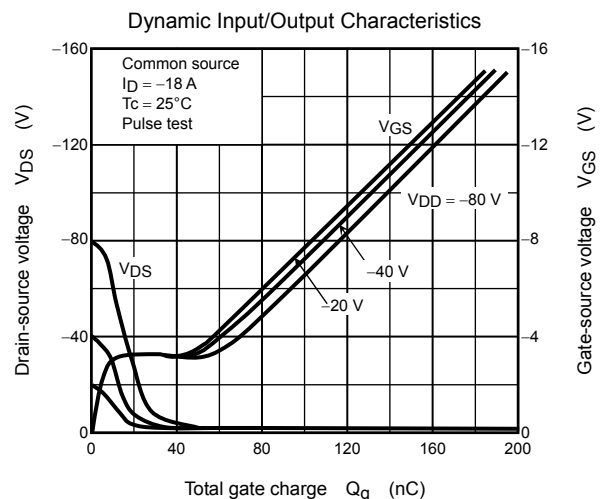
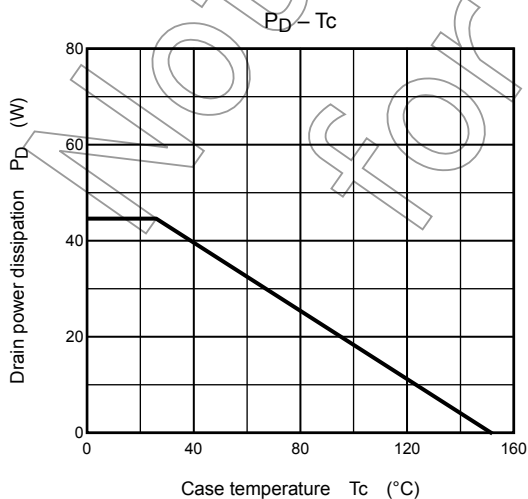
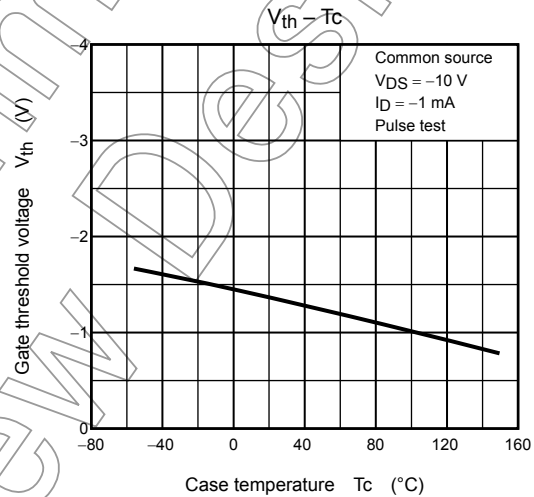
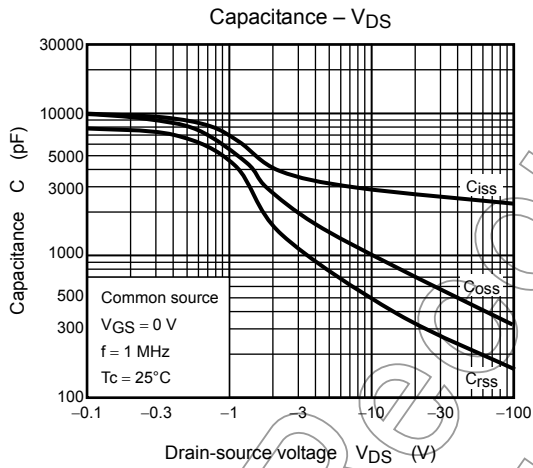
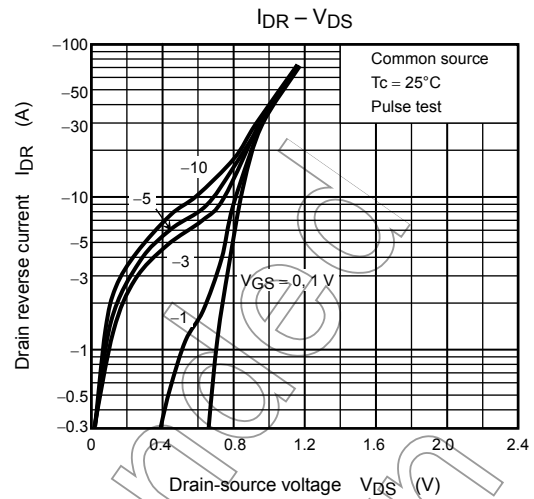
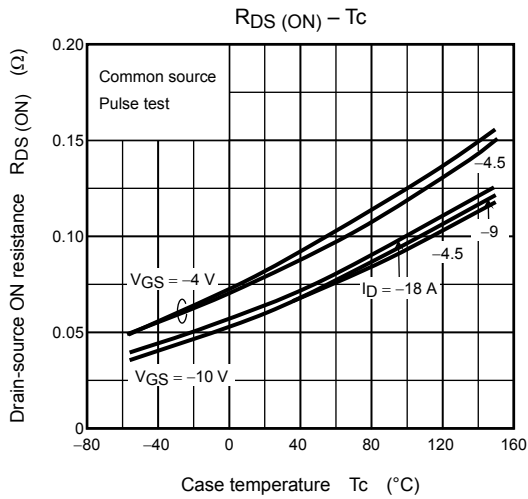
Note 4: A line under a Lot No. identifies the indication of product Labels.

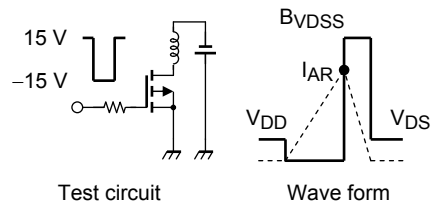
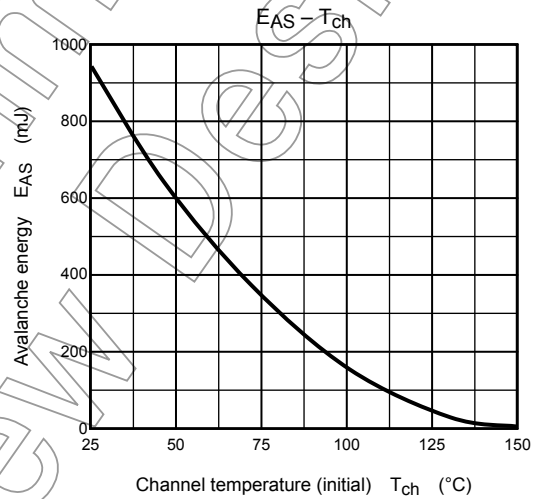
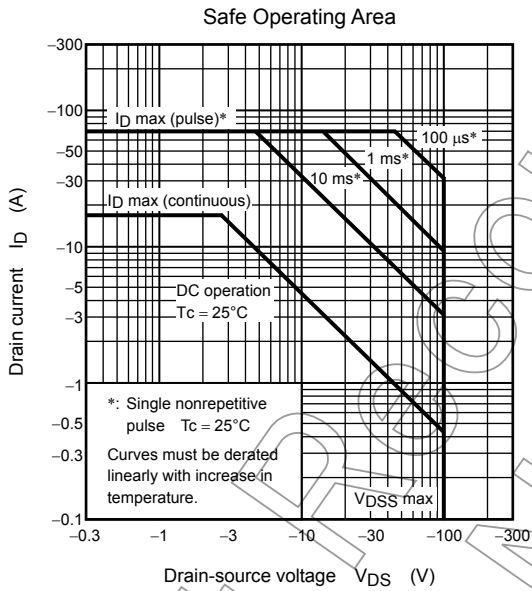
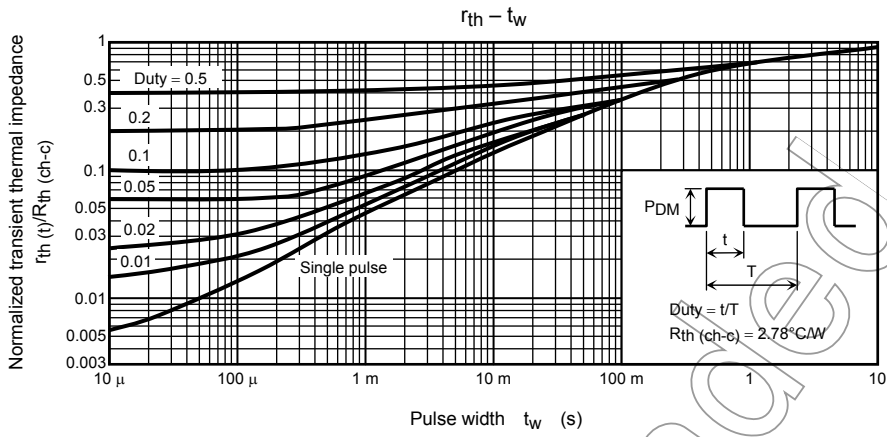
Not underlined: $[[Pb]]/INCLUDES > MCV$

Underlined: $[[G]]/RoHS\ COMPATIBLE$ or $[[G]]/RoHS\ [[Pb]]$

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$R_G = 25 \Omega$
 $V_{DD} = -50 V, L = 3.56 mH$

$$E_{AS} = \frac{1}{2} \cdot L \cdot I_{AR}^2 \cdot \left(\frac{B_{VDSS}}{B_{VDSS} - V_{DD}} \right)$$

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