



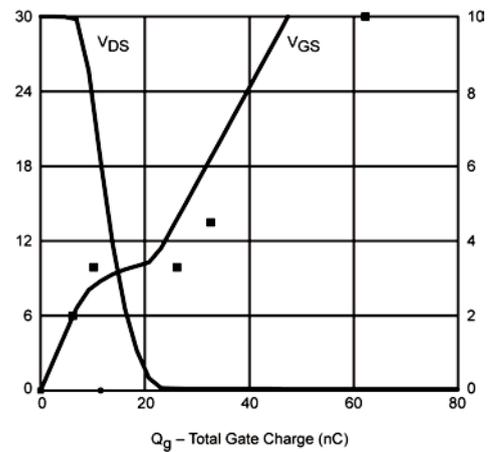
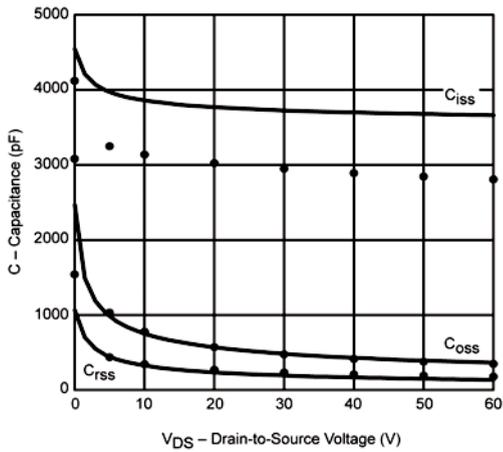
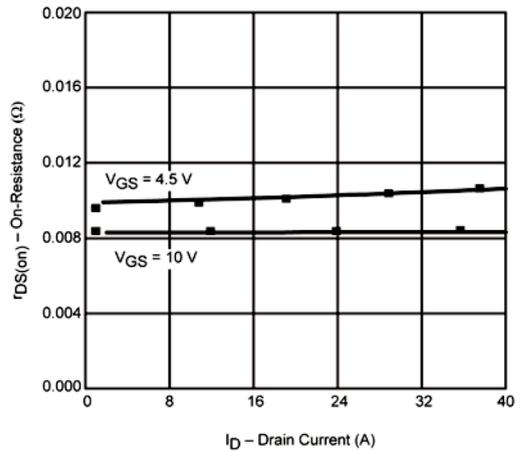
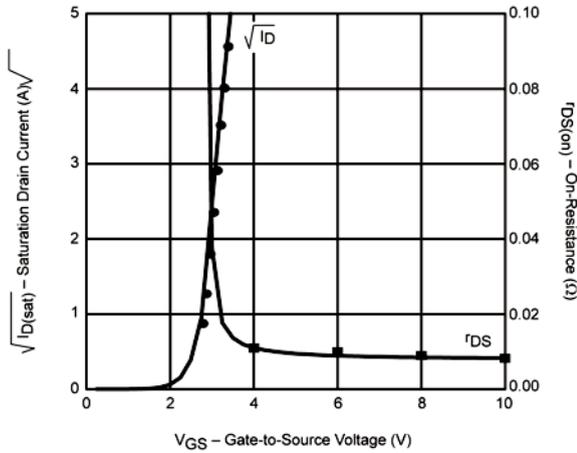
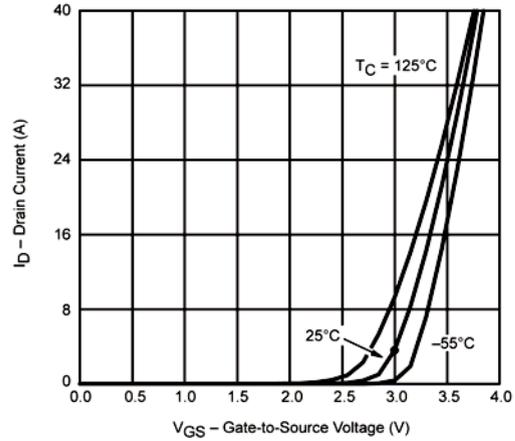
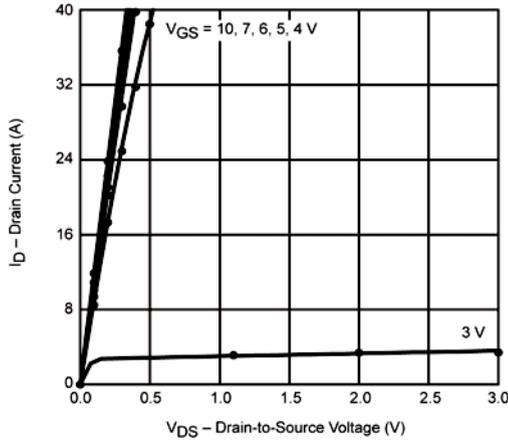
| SPECIFICATIONS ($T_J = 25\text{ }^\circ\text{C}$, unless otherwise noted) | | | | | |
|--|--------------|--|----------------|---------------|----------|
| PARAMETER | SYMBOL | TEST CONDITIONS | SIMULATED DATA | MEASURED DATA | UNIT |
| Static | | | | | |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS} = V_{GS}, I_D = 250\text{ }\mu\text{A}$ | 1.7 | - | V |
| On-State Drain Current ^a | $I_{D(on)}$ | $V_{DS} \geq 5\text{ V}, V_{GS} = 10\text{ V}$ | 567 | - | A |
| Drain-Source On-State Resistance ^a | $R_{DS(on)}$ | $V_{GS} = 10\text{ V}, I_D = 18\text{ A}$ | 0.008 | 0.008 | Ω |
| | | $V_{GS} = 4.5\text{ V}, I_D = 16\text{ A}$ | 0.010 | 0.010 | |
| Forward Transconductance ^a | g_{fs} | $V_{DS} = 15\text{ V}, I_D = 18\text{ A}$ | 48 | 60 | S |
| Diode Forward Voltage | V_{SD} | $I_S = 4.3\text{ A}, V_{GS} = 0\text{ V}$ | 0.84 | 0.72 | V |
| Dynamic^b | | | | | |
| Total Gate Charge | Q_g | $V_{DS} = 30\text{ V}, V_{GS} = 10\text{ V}, I_D = 18\text{ A}$ | 49 | 65 | nC |
| Gate-Source Charge | Q_{gs} | | 10.5 | 10.5 | |
| Gate-Drain Charge | Q_{gd} | | 16 | 16 | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{DD} = 30\text{ V}, R_L = 30\text{ }\Omega$ $I_D = 1\text{ A}, V_{GEN} = 10\text{ V}, R_g = 6\text{ }\Omega$ | 16 | 20 | ns |
| Rise Time | t_r | | 9 | 16 | |
| Turn-Off Delay Time | $t_{d(off)}$ | | 46 | 75 | |
| Fall Time | t_f | | 46 | 30 | |

Notes

- a. Pulse test; pulse width $\leq 300\text{ }\mu\text{s}$, duty cycle $\leq 2\%$.
- b. Guaranteed by design, not subject to production testing.



COMPARISON OF MODEL WITH MEASURED DATA ($T_J = 25\text{ }^\circ\text{C}$, unless otherwise noted)



Note

- Dots and squares represent measured data.