



YJT300G10H

Electrical Characteristics (T_J=25 unless otherwise noted)

| Parameter | Symbol | Conditions | Min | Typ | Max | Units |
|-----------------------------------|---------------------|---|-----|------|------|-------|
| Static Parameter | | | | | | |
| Drain-Source Breakdown Voltage | BV _{DSS} | V _{GS} =0V, I _D | 100 | - | - | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} =100V, V _{GS} =0V | - | - | 1 | |
| | | V _{DS} =100V, V _{GS} =0V, T _J =150 | - | - | 100 | |
| Gate-Body Leakage Current | I _{GSS} | V _{GS} = ±20V, V _{DS} =0V | - | - | ±100 | nA |
| Gate Threshold Voltage | V _{GS(th)} | V _{DS} = V _{GS} , I _D | 2 | 2.8 | 4 | V |
| Static Drain-Source On-Resistance | R _{DS(ON)} | V _{GS} =10V, I _D =150A | - | 1.35 | 1.7 | |
| | | V _{GS} =10V, I _D =20A | - | 1.35 | 1.7 | |
| | | V _{GS} =6V, I _D =20A | - | 1.75 | 2.5 | |
| Diode Forward Voltage | V _{SD} | I _S =150A, V _{GS} =0V | - | 0.9 | 1.2 | V |



Typical Electrical and Thermal Characteristics Diagrams

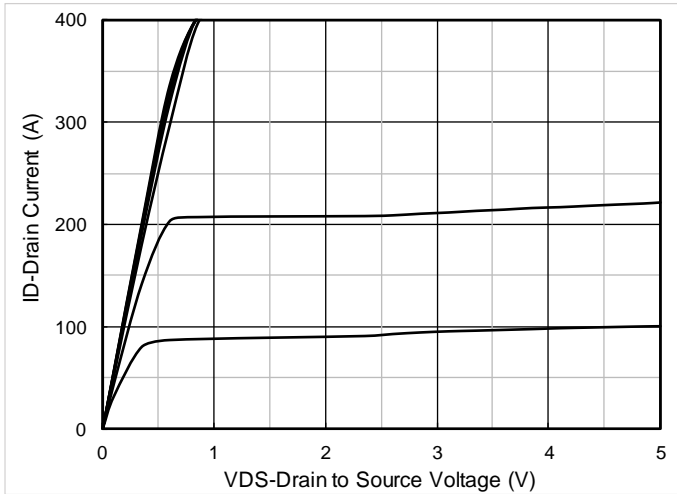


Figure 1. Output Characteristics

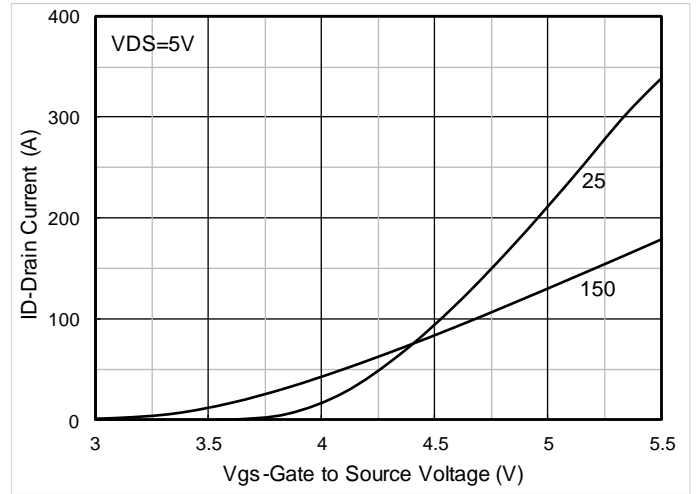


Figure 2. Transfer Characteristics

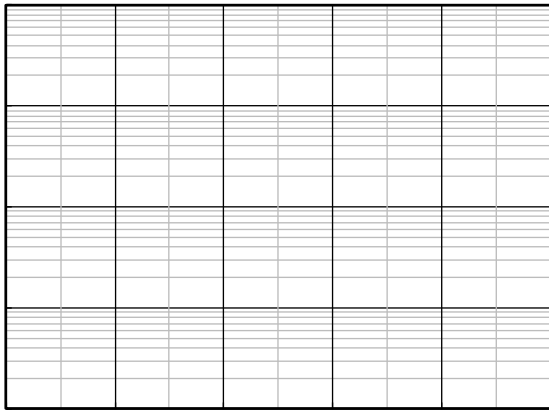


Figure 3. Capacitance Characteristics

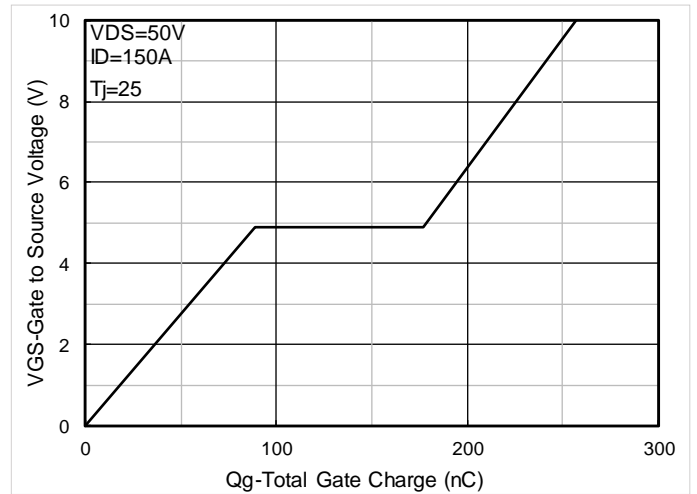


Figure 4. Gate Charge

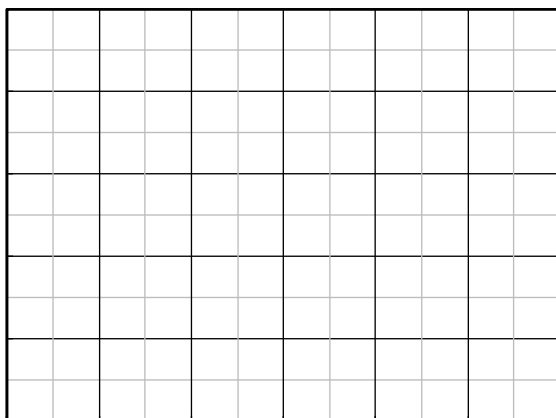


Figure 5. On-Resistance vs Gate to Source Voltage

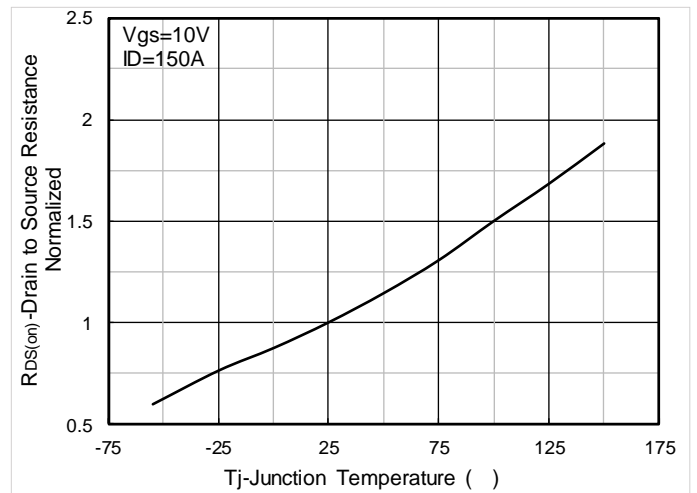


Figure 6. Normalized On-Resistance

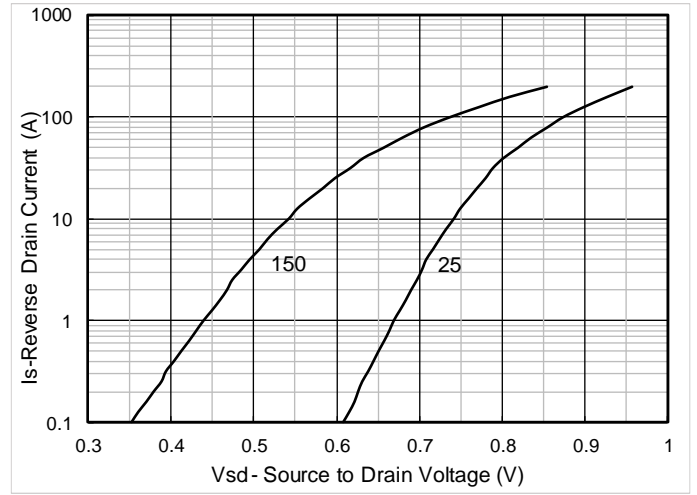
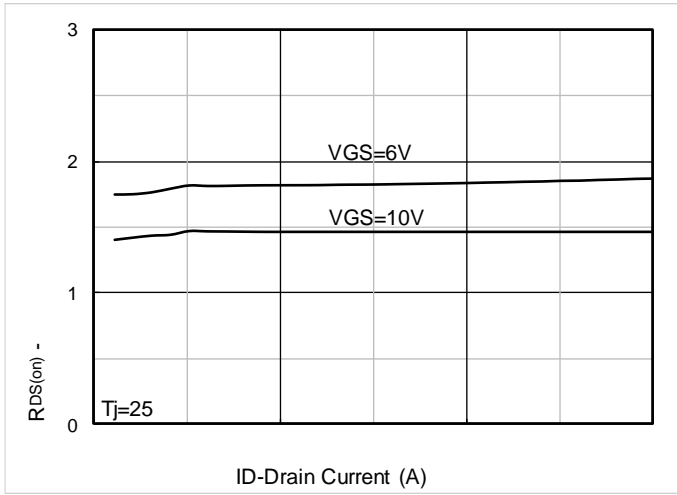


Figure 7.

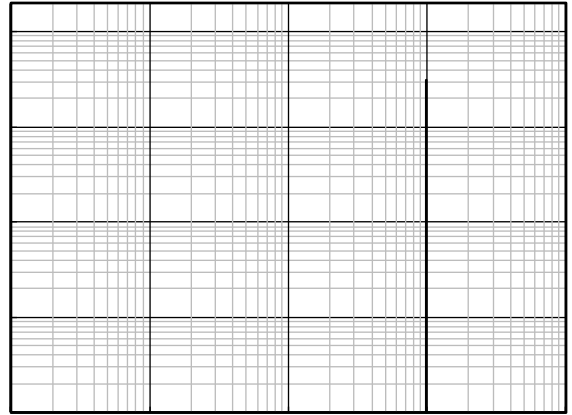


Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area

Test Circuits & Waveforms

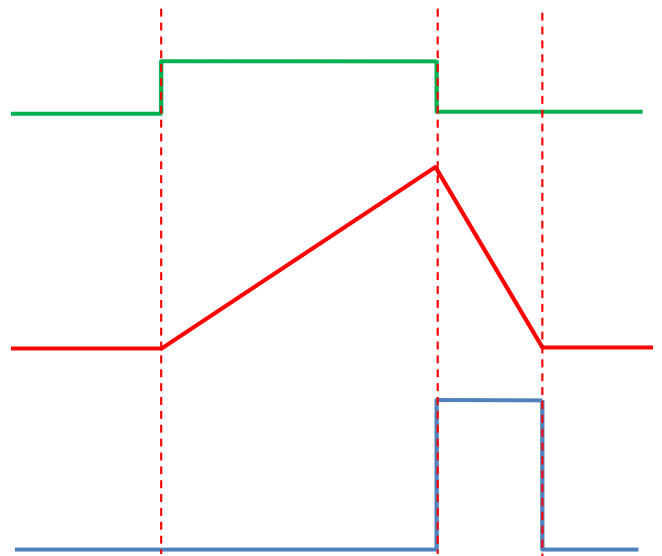


Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform



Figure B. Gate Charge Test Circuit & Waveform

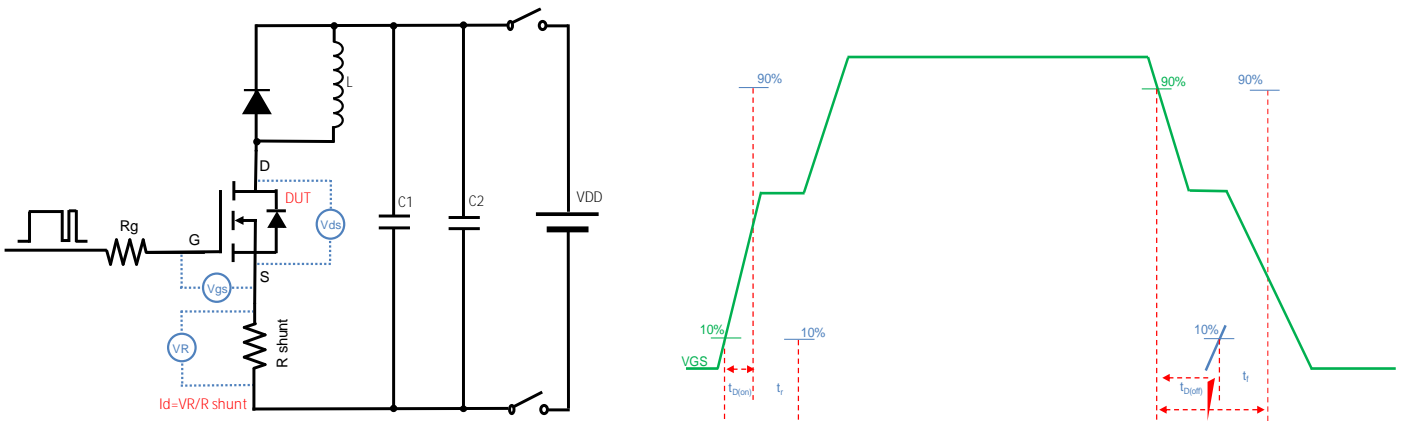


Figure C. Resistive Switching Test Circuit & Waveform



Figure D. Diode Recovery Test Circuit & Waveform



TOLL Package information

| SYMBOL | MILLIMETER | | |
|--------|------------|-----|-----|
| | MIN | NOM | MAX |
| A | 2.2 | 2.3 | 2.4 |
| A1 | 1.7 | 1.8 | 1.9 |
| b | 0.7 | 0.8 | 0.9 |
| b1 | 9.7 | 9.8 | 9.9 |
| b2 | 1.1 | 1.2 | 1.3 |
| c | 0.4 | 0.5 | 0.6 |
| D | | | |

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.03\text{mm}$.
3. The pad layout is for reference purposes only.



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