





# YJL02N10A

## ■ Electrical Characteristics ( $T_J=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	100			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0V$			1	$\mu A$
Gate-Body Leakage Current	$I_{GSS1}$	$V_{GS}=\pm 20V, V_{DS}=0V$			$\pm 100$	nA
	$I_{GSS2}$	$V_{GS}=\pm 10V, V_{DS}=0V$			$\pm 50$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.1	1.8	2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=2A$		250	280	$m\Omega$



### Typical Performance Characteristics

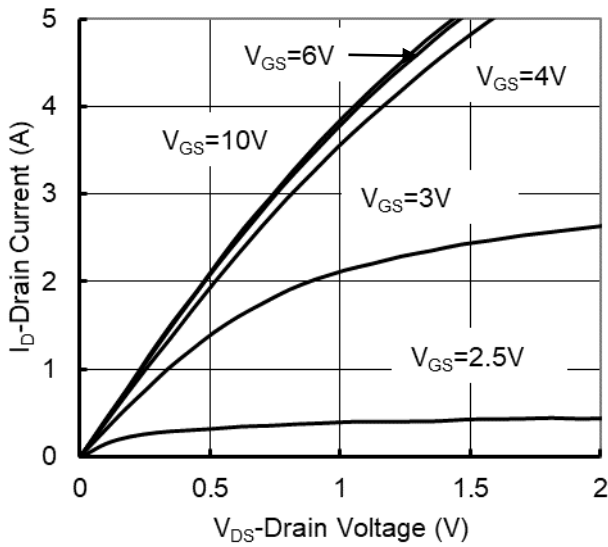


Figure1. Output Characteristics

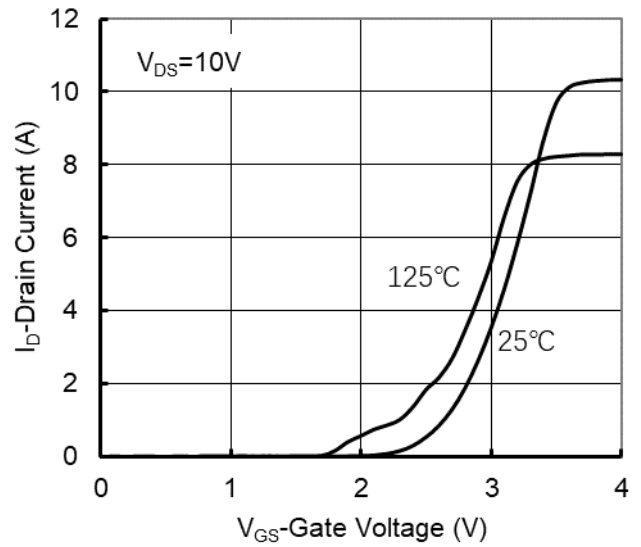


Figure2. Transfer Characteristics

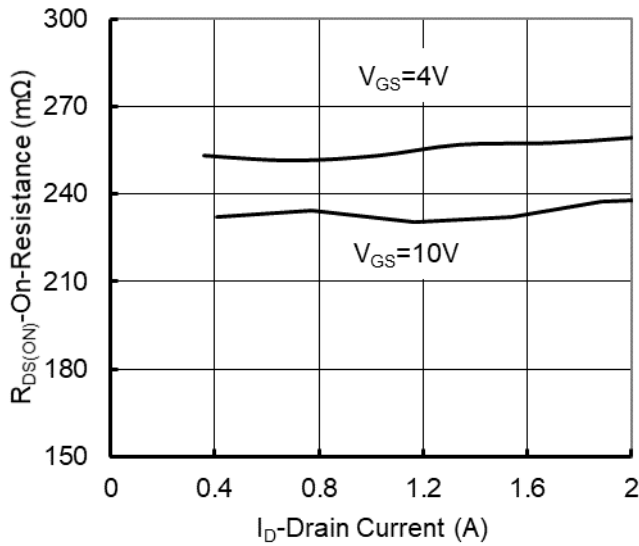


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

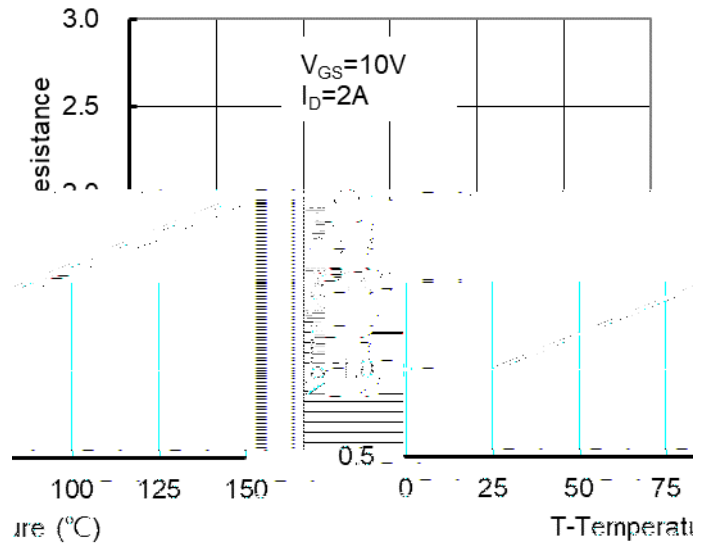


Figure 4: On-Resistance vs. Junction Temperature

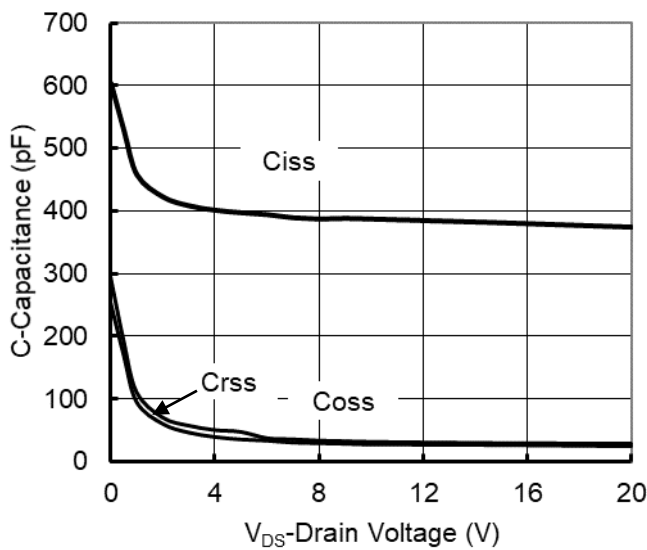


Figure5. Capacitance Characteristics

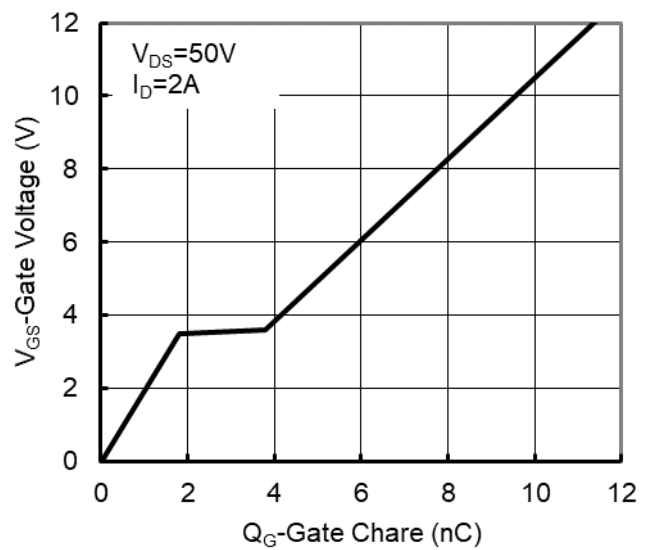


Figure6. Gate Charge



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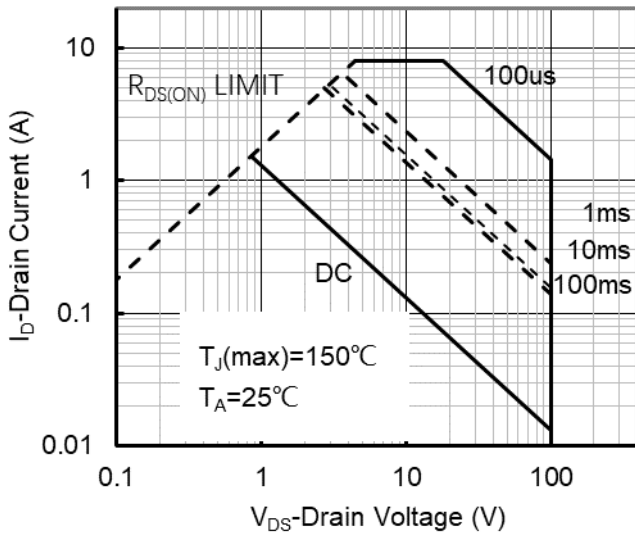


Figure7. Safe Operation Area

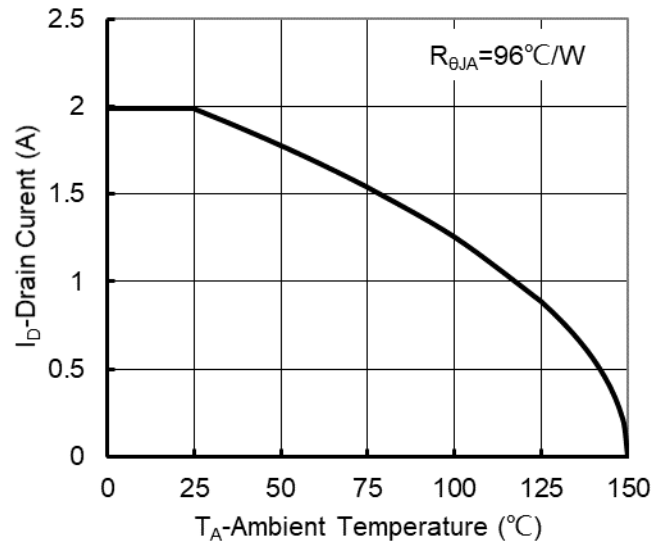


Figure8. Maximum Continuous Drain Current vs Ambient Temperature

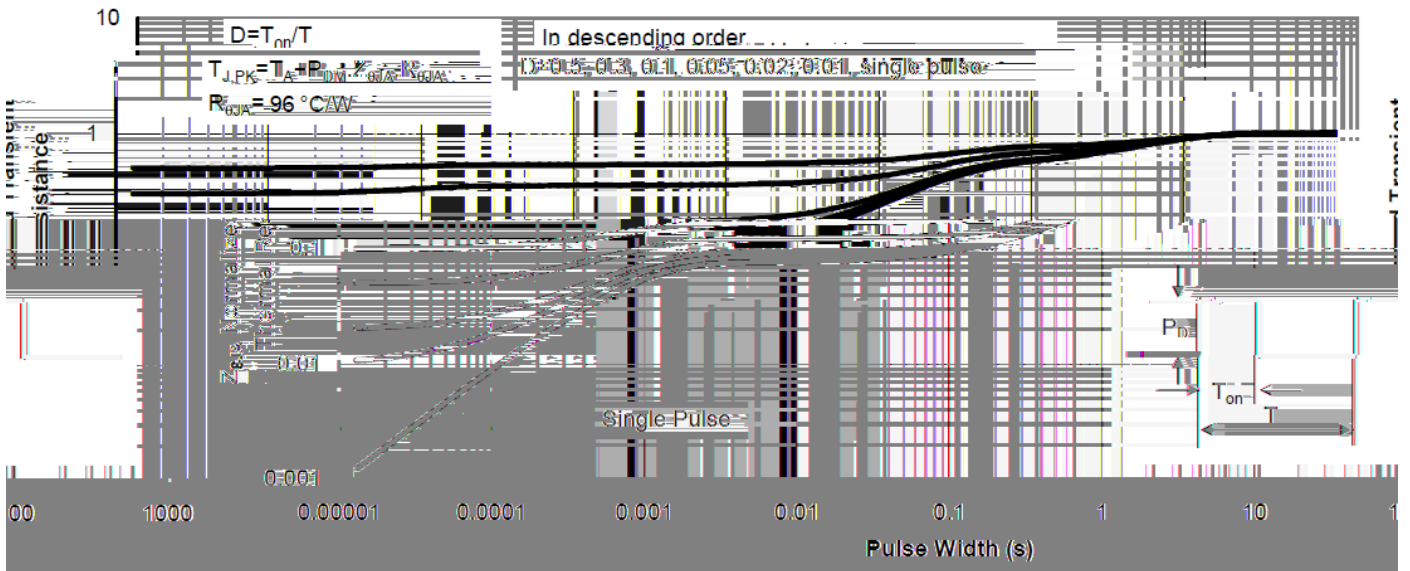
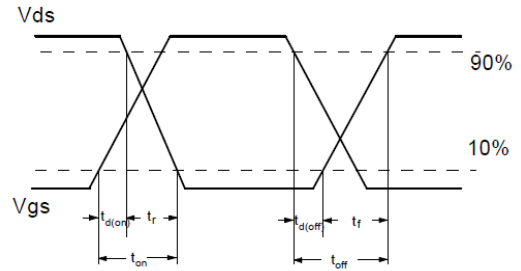
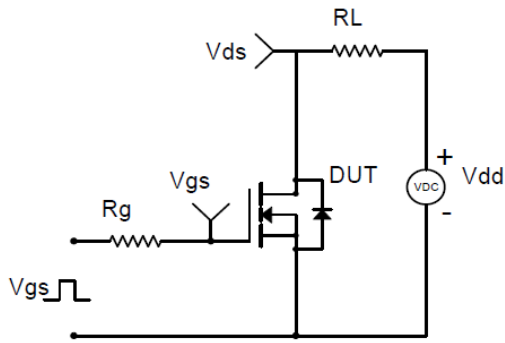
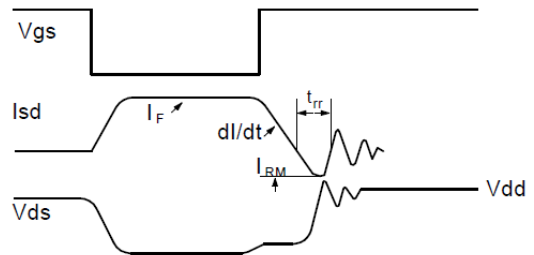
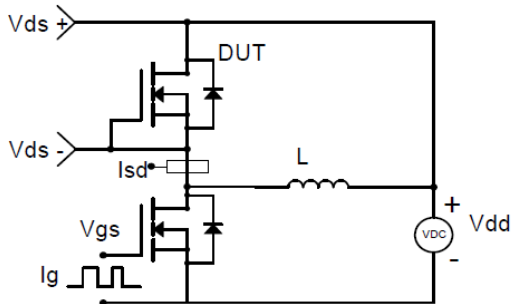


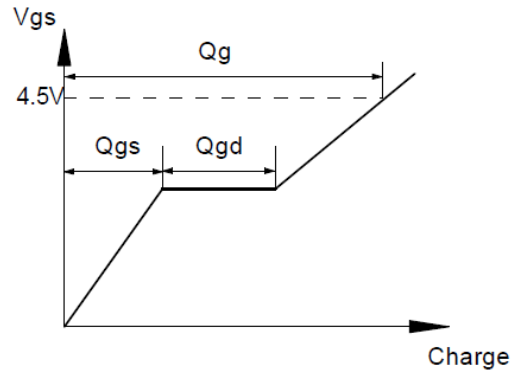
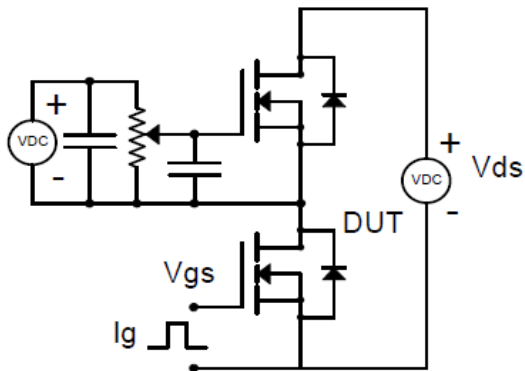
Figure9. Normalized Maximum Transient Thermal Impedance



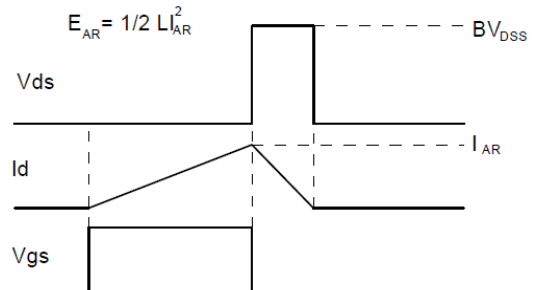
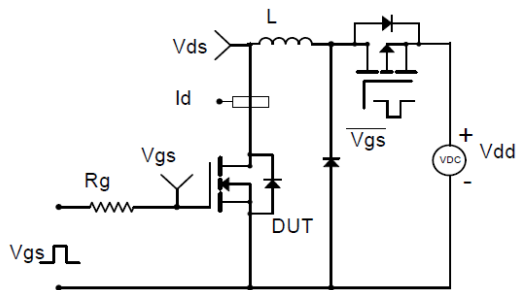
**Resistive Switching Test Circuit & Waveforms**



**Diode Recovery Test Circuit & Waveforms**



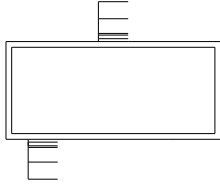
**Gate Charge Test Circuit & Waveform**



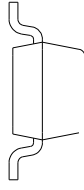
**Unclamped Inductive Switching (UIS) Test Circuit & Waveforms**



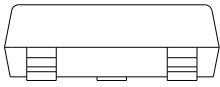
■ SOT-23 Package information



TOP VIEW



SIDE VIEW



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT



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