

V_{DS}	-19V
I_D	-1.7A
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	114mhm
$R_{DS(ON)}$ (at $V_{GS}=-2.5V$)	151mhm
$R_{DS(ON)}$ (at $V_{GS}=-1.8V$)	219mhm

Trench Power LV MOSFET technology
 Low $R_{DS(ON)}$
 Low Gate Charge

Videomonitor
 Powermanagement

($T_A=25$ unless otherwise noted)

Drain-source Voltage		V_{DS}	-19	V
Gate-source Voltage		V_{GS}	10	V
Drain Current	$T_A=25$ @ Steady State	I_D	-1.7	A
	$T_A=70$ @ Steady State		-1.4	
Pulsed Drain Current ^A		I_{DM}	-8	A
Total Power Dissipation @ $T_A=25$		P_D	0.7	W
Thermal Resistance Junction to Ambient ^B		R_{JA}	178	W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

(Example)

YL2301N	F2	2301 _N	3000	30000	120000	7" reel
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($T_J=25$ unless otherwise noted)

Drain Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V, I_D=250\mu A$	-19			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-19V, V_{GS}=0V, T_C=25$			-1	μA
Gate Body Leakage Current	I_{GSS}	$V_{GS}=10V, V_{DS}=0V$			100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	-0.4	-0.62	-1.0	V
Static Drain Source On Resistance	$R_{DS(on)}$	$V_{GS}=-45V, I_D=1.5A$		94	114	m
		$V_{GS}=-25V, I_D=1.2A$		130	151	
		$V_{GS}=-1.8V, I_D=1.0A$		189	219	
Diode Forward Voltage	V_{SD}	$I_S=1.7A, V_{GS}=0V$		-0.8	-1.2	V
Maximum Body Diode Continuous Current	I_S				-1.7	A
Input Capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0V, f=1MHz$		327		μF
Output Capacitance	C_{oss}			62		
Reverse Transfer Capacitance	C_{rss}			55		
Total Gate Charge	Q_g	$V_{GS}=-45V, V_{DS}=-10V, I_D=1.5A$		45		nC
Gate Source Charge	Q_{gs}			085		
Gate Drain Charge	Q_{gd}			14		
Reverse Recovery Charge	Q_r	$I_F=1.5A, di/dt=100A/\mu s$		23		ns
Reverse Recovery Time	t_r			27		
Turn on Delay Time	$t_{d(on)}$	$V_{GS}=-45V, V_{DD}=-10V, I_D=1A, R_{GEN}=25$		6		ns
Turn on Rise Time	t_r			30		
Turn off Delay Time	$t_{d(off)}$			45		
Turn off Fall Time	t_f			46		

A A Pulse Test Pulse Width 300 μs , Duty cycle 2%

B Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

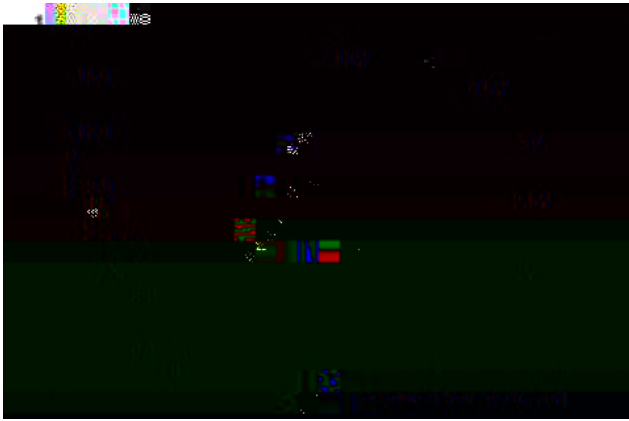


Figure1. Output Characteristics

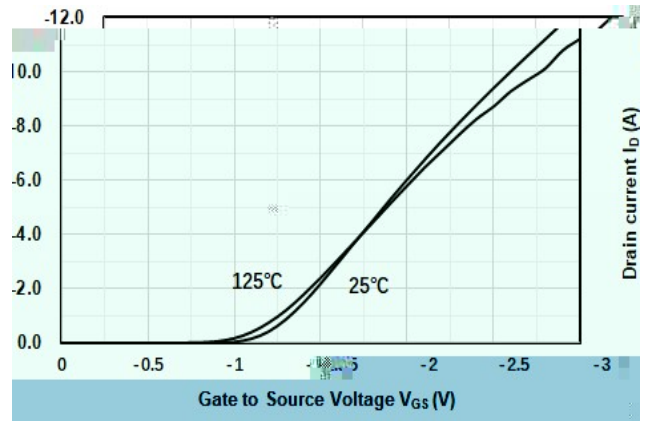


Figure2. Transfer Characteristics

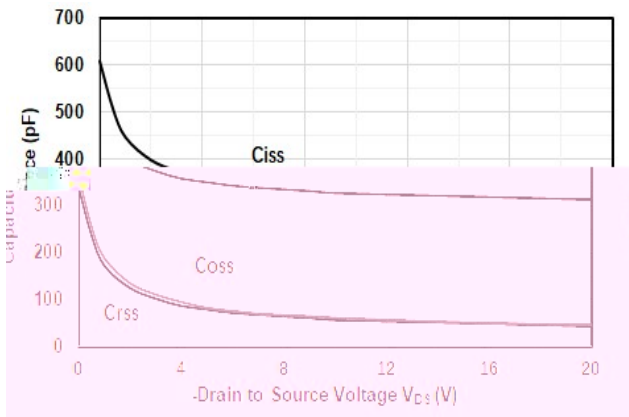


Figure3. Capacitance Characteristics

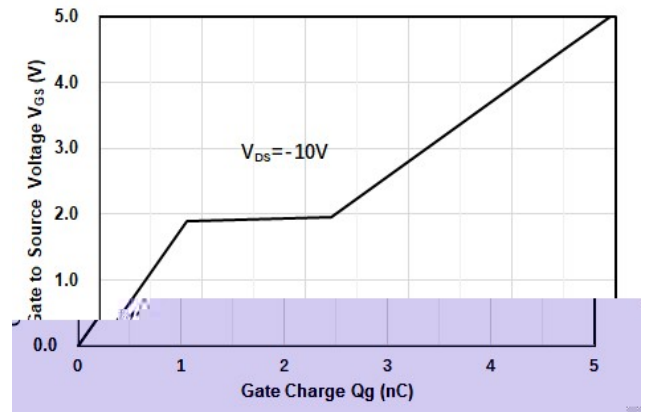


Figure4. Gate Charge

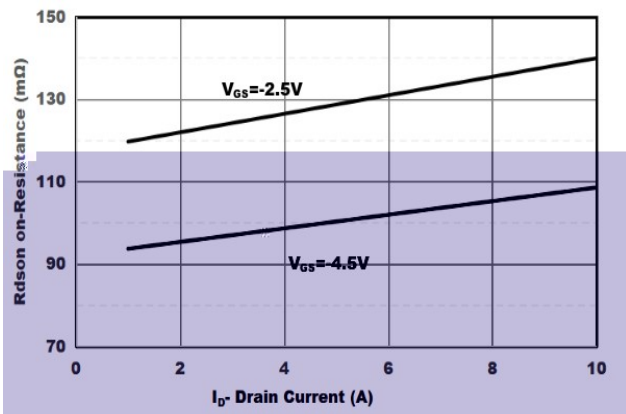


Figure5. Drain Source on Resistance



Figure6. Drain Source on Resistance

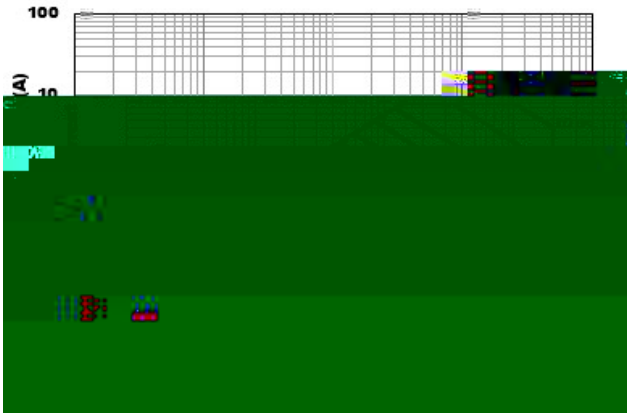


Figure7. Safe Operation Area

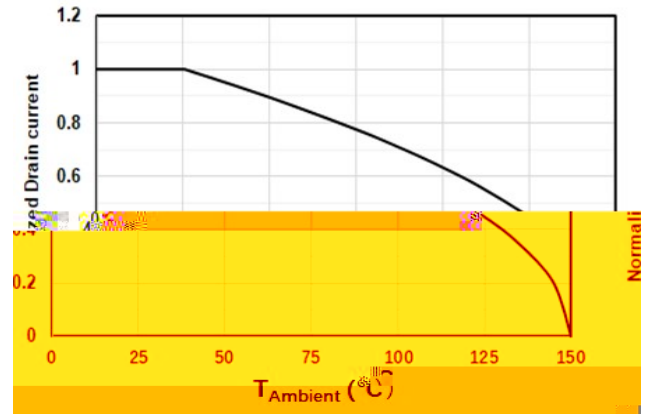


Figure8 Drain Current vs Ambient temperature

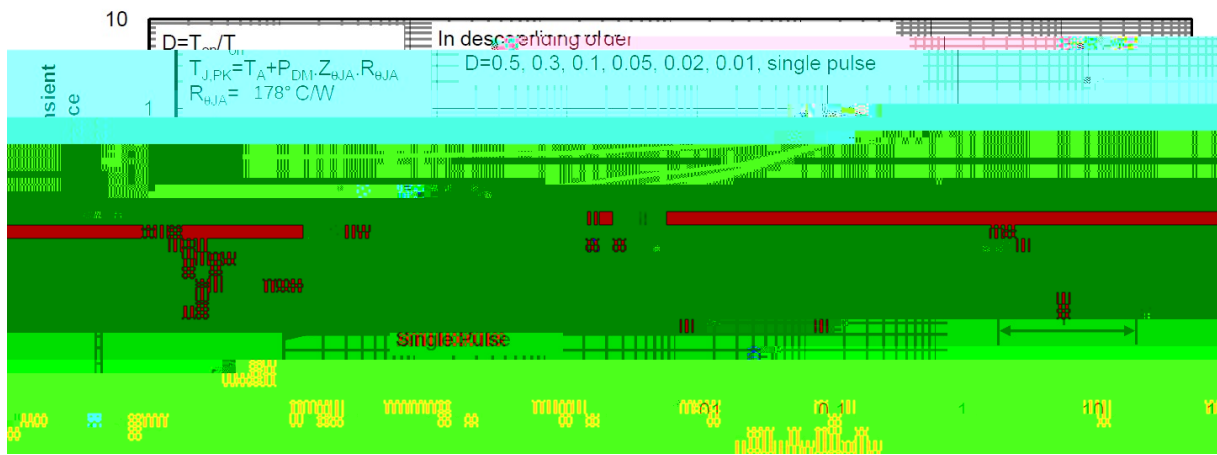


Figure9 Normalized Maximum Transient Thermal Impedance



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