



**YJL2301G**

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## **P-Channel Enhancement Mode Field Effect Transistor**

### **Product Summary**

$V_{DS}$

-19V

I



# YJL2301G

## Electrical Characteristics ( $T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	-19			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=-19V, V_{GS}=0V, T_C=25$			-1	$\mu A$
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	$R_{DS(on)}$	$V_{GS}=-4.5V, I_D=1.5A$		65	85	m
		$V_{GS}=-2.5V, I_D=1.5A$		92	114	
		$V_{GS}=-1.8V, I_D=1.5A$		130	162	
Diode Forward Voltage	$V_{SD}$	$I_S=2A, V_{GS}=0V$		-0.8	-1.2	V
Maximum Body Diode Continuous Current	$I_S$				-2	A
<b>Dynamic Parameters</b>						
Input Capacitance	$C_{iss}$	$V_{DS}=-10V, V_{GS}=0V, f=1MHz$		327		$\mu F$
Output Capacitance	$C_{oss}$			62		
Reverse Transfer Capacitance	$C_{rss}$			55		
<b>Switching Parameters</b>						
Total Gate Charge	$Q_g$	$V_{GS}=-4.5V, V_{DS}=-10V, I_D=2A$		39		nC
Gate Source Charge	$Q_{gs}$			07		
Gate Drain Charge	$Q_{gd}$			09		
Reverse Recovery Charge	$Q_r$	$I_F=20A, di/dt=100A/\mu s$		23		nC
Reverse Recovery Time	$t_r$			27		
Turn on Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V, V_{DD}=-10V, I_D=1A, R_{GEN}=25$		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 Pulse Test Pulse Width 300 $\mu s$ , Duty cycle 2%

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



**Typical Performance Characteristics**

**Figure1. Output Characteristics**

**Figure2. Transfer Characteristics**

**Figure3. Capacitance Characteristics**

**Figure4. Gate Charge**

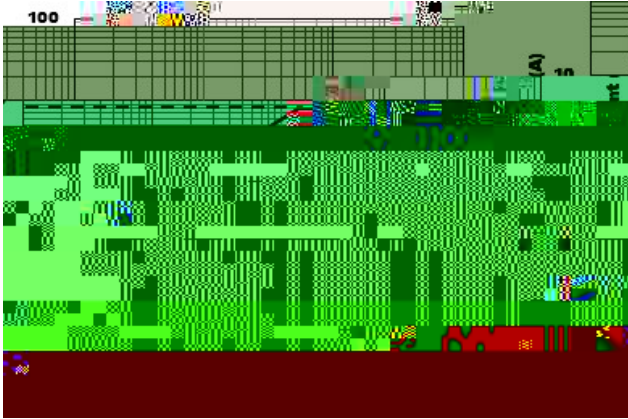


Figure7. Safe Operation Area

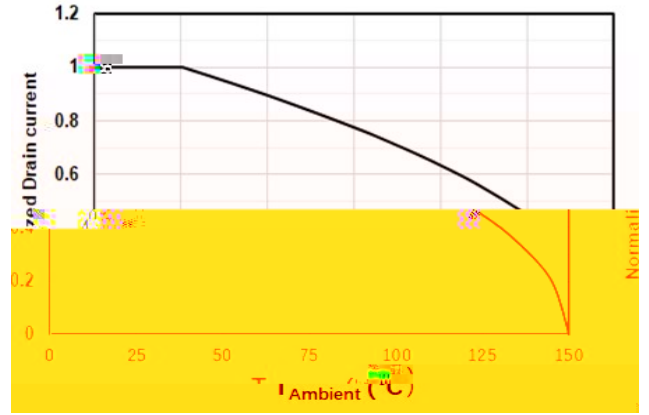


Figure8 Drain Current vs Ambient temperature

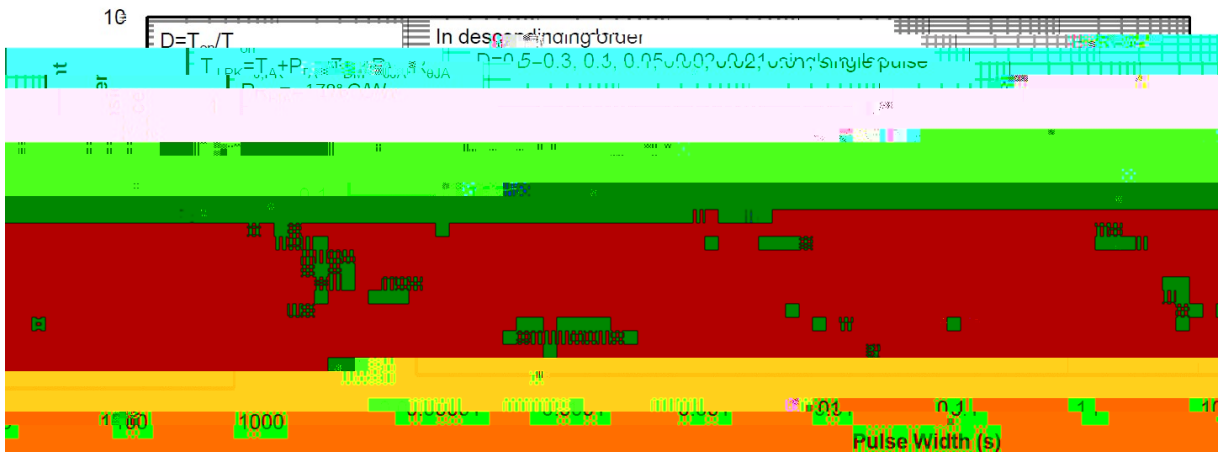
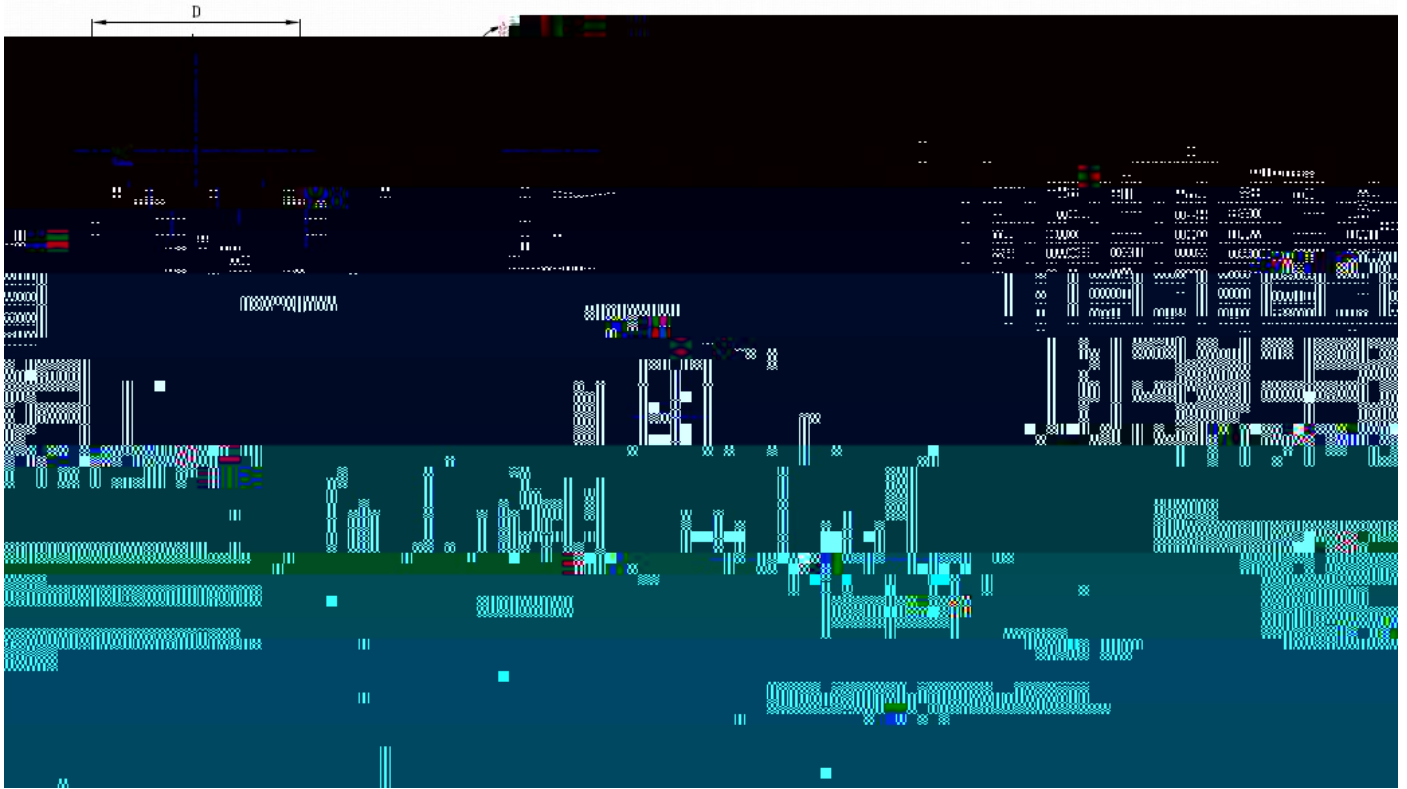


Figure9 Normalized Maximum Transient Thermal Impedance



**SOF-23 Package information**





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