



YJL2301G

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
Static Parameter						
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	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	$R_{DS(on)}$	$V_{GS}=-4.5V, I_D=1.5A$		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
Dynamic Parameters						
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		
Switching Parameters						
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 μs , 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

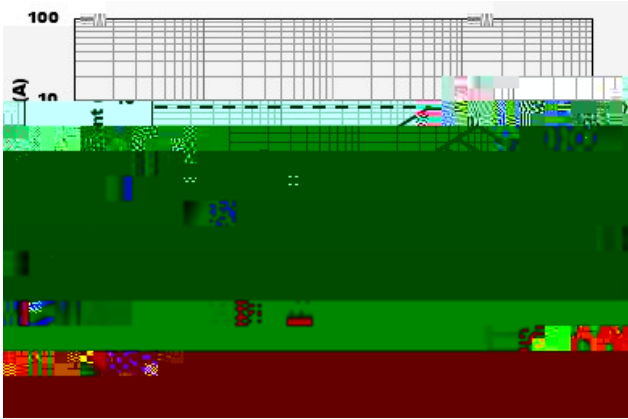


Figure7. Safe Operation Area

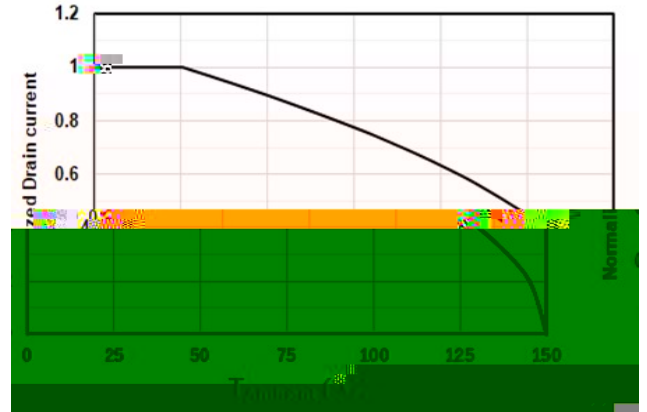


Figure8 Drain Current vs Ambient temperature

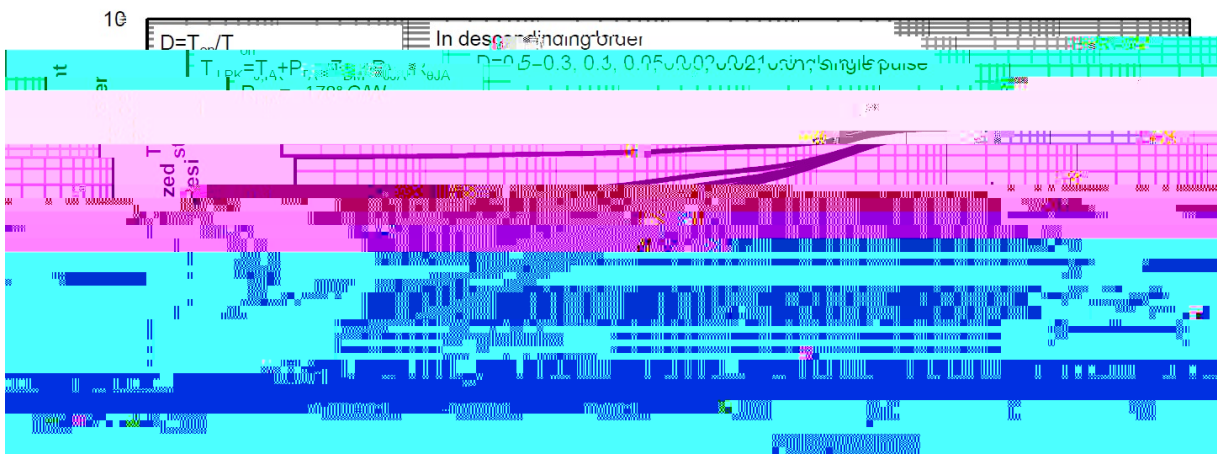
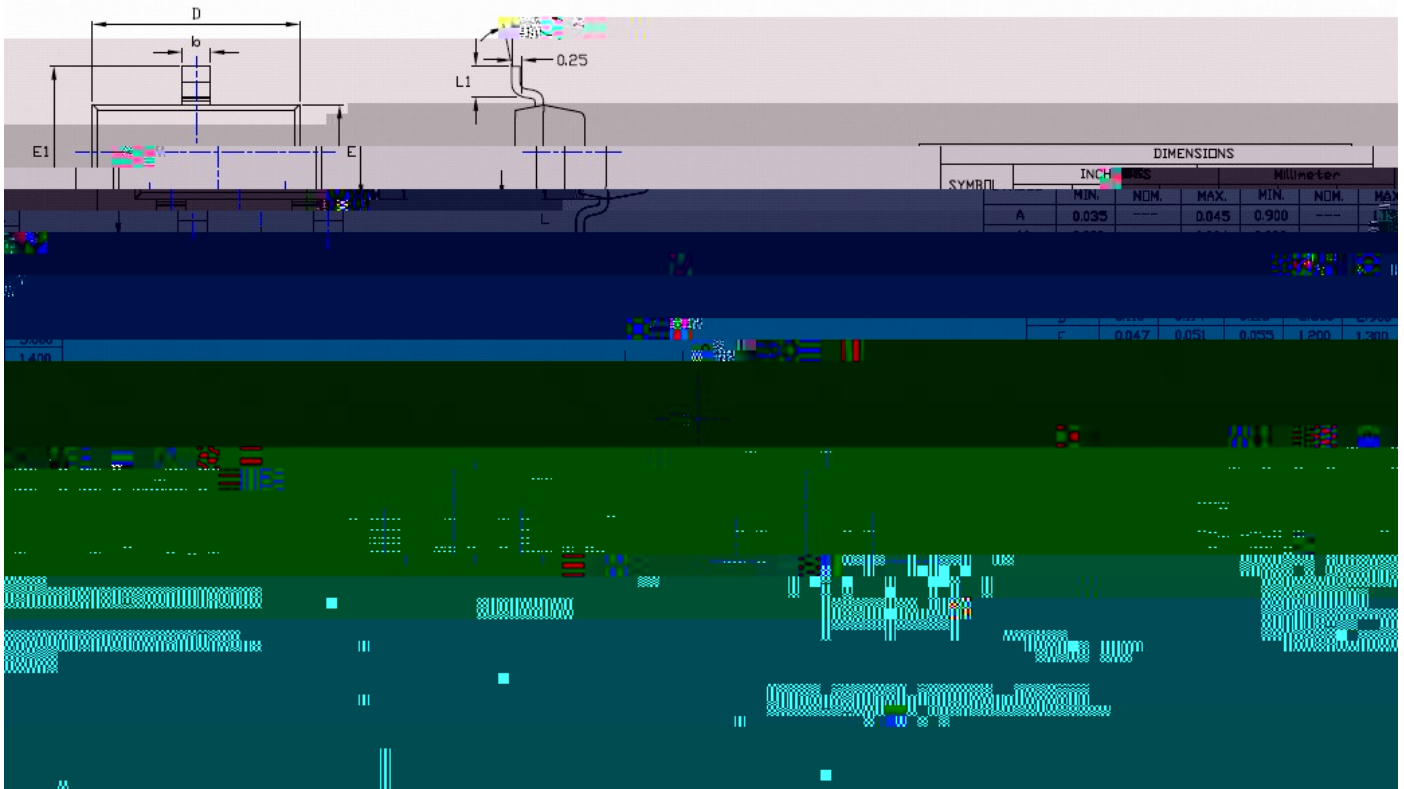


Figure9 Normalized Maximum Transient Thermal Impedance



SOF-23 Package information





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