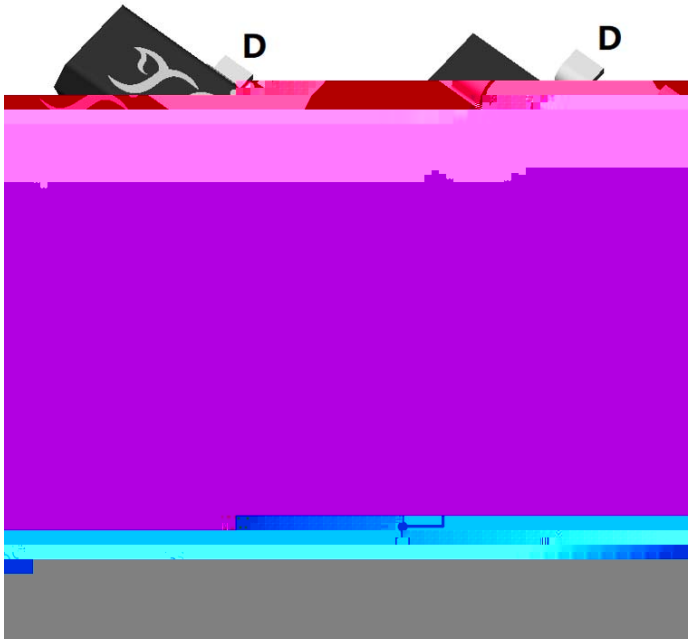
YJL03N06AQ

COMPLIANT



100mohm

- $R_{DS(ON)}$(at V_{GS}=4.5V) 120mohm

General Description

- Trench Power MV MOSFET technology
- Excellent package for heat dissipation
- High density cell design for low $R_{DS(ON)}$

				Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	±20	V
Drain Current	T_A=25	I_D	3	A
	T_A=70		2.4	
Pulsed Drain Current [A]		I_{DM}	12	A
Total Power Dissipation	T_A=25	P_D	1.2	W
	T_A=70		0.8	W
Thermal Resistance Junction-to-Ambient [B]		$R_{\theta JA}$	104	/ W
Junction and Storage Temperature Range		T_J ,T_{STG}	-55 +150	

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL03N06AQ	F2	S10.	3000	30000	120000	7“ reel

■ 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=250μA	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V,V_{GS}=0V			1	μA
Gate-Body Leakage Current	I_{GSS1}	V_{GS}=±20V, V_{DS}=0V			±100	nA
	I_{GSS2}	V_{GS}=±10V, V_{DS}=0V			±50	
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}= V_{GS}, I_D=250μA	0.9	1.3	2.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=10V, I_D=3A		86	100	mΩ
		V_{GS}=4.5V, I_D=2A		92	120	
Diode Forward Voltage	V_{SD}	I_S=3A,V_{GS}=0V			1.2	V
Dynamic Parameters						
Input Capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0V,f=1MHZ		409		pF
Output Capacitance	C_{oss}			50		
Reverse Transfer Capacitance	C_{rss}			41		
Switching Parameters						
Total Gate Charge	Q_g	V_{GS}=10V,V_{DS}=30V,I_D=3A				

■ Typical Performance Characteristics

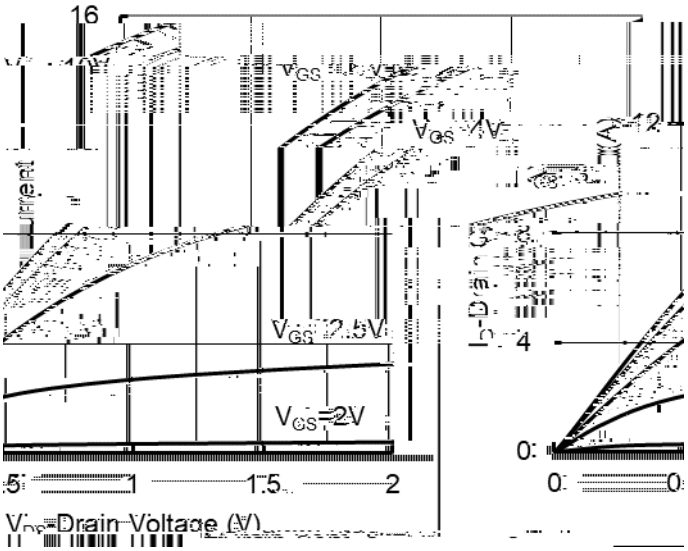


Figure1. Output Characteristics

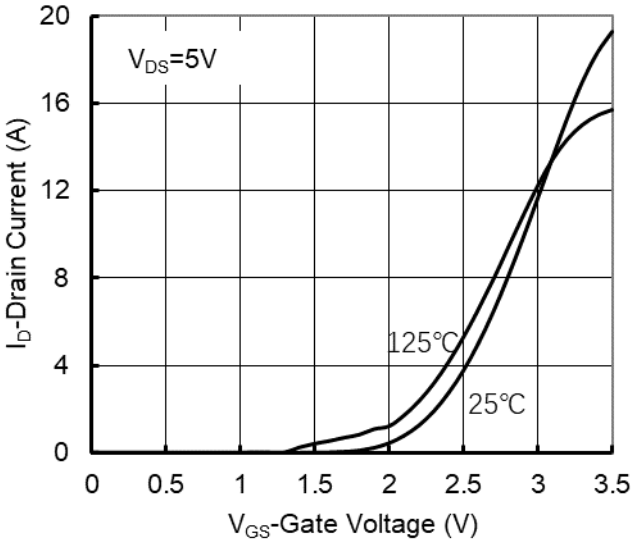


Figure2. Transfer Characteristics

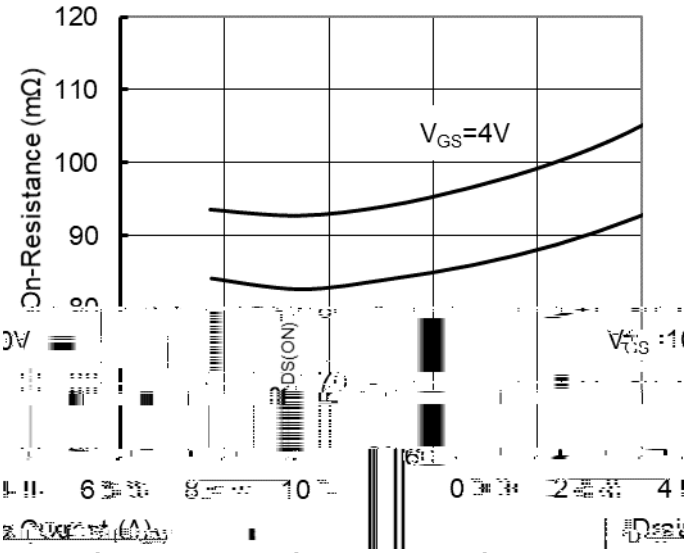


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

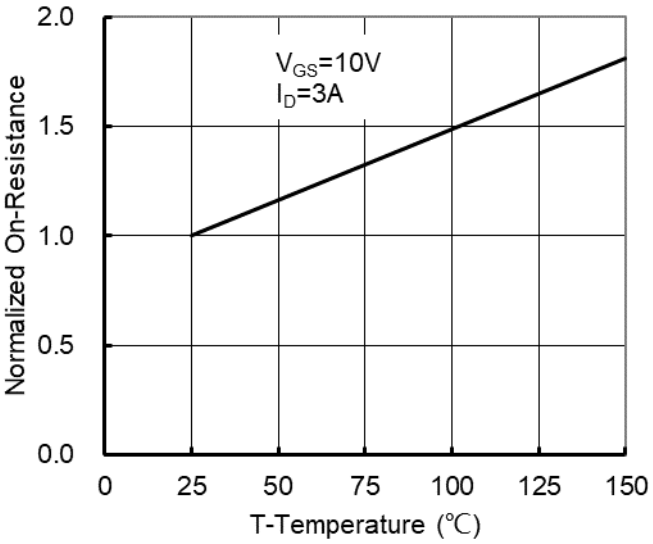
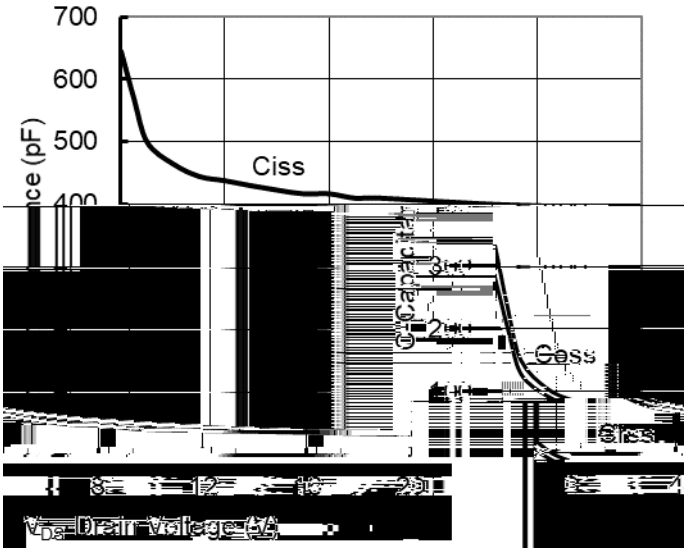


Figure 4: On-Resistance vs. Junction Temperature



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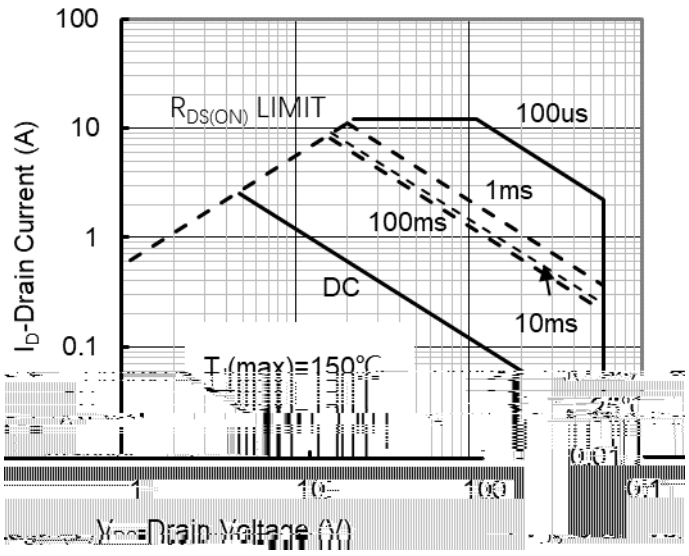


Figure7. Safe Operation Area

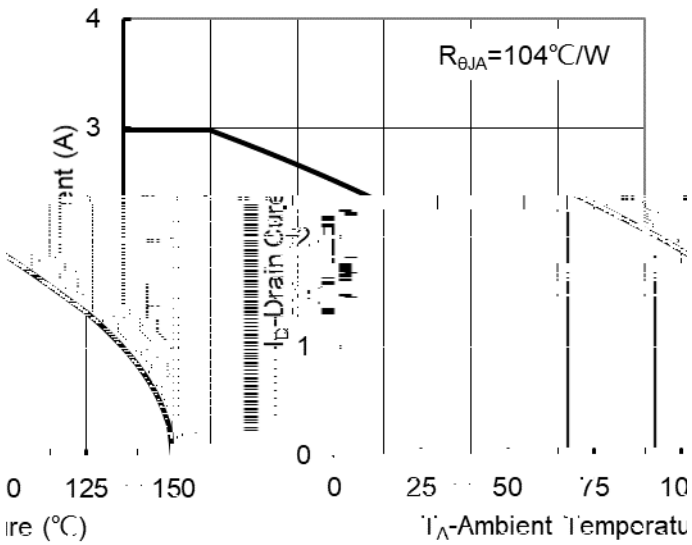


Figure8. Maximum Continuous Drain Current vs Ambient Temperature

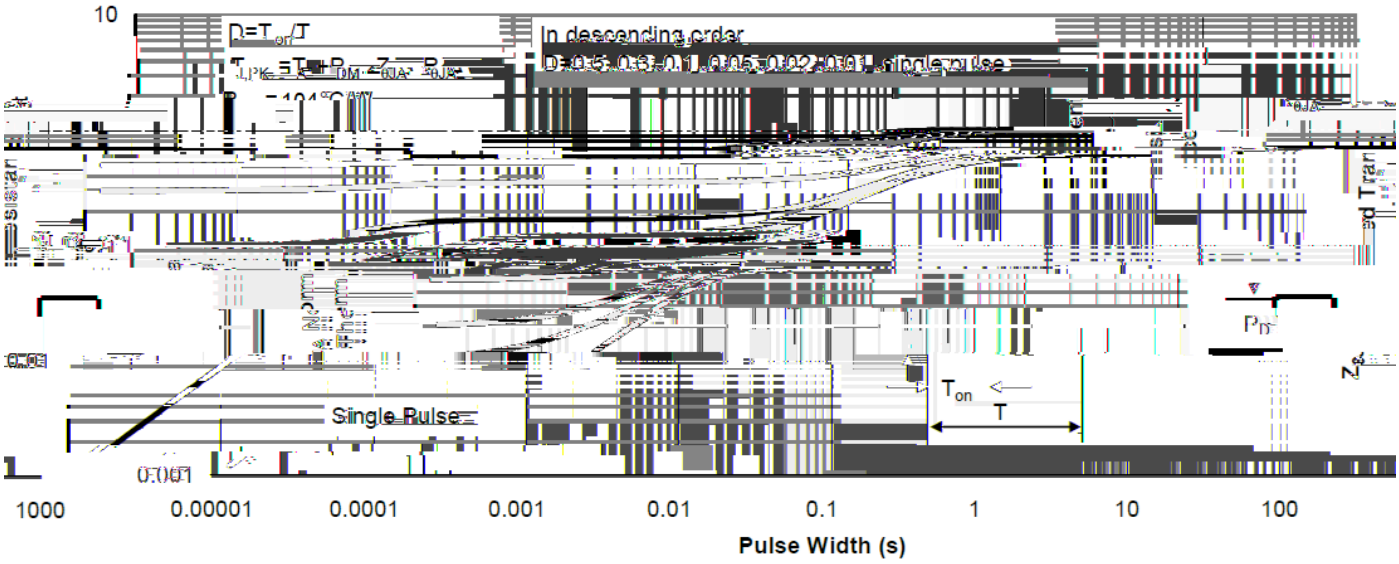
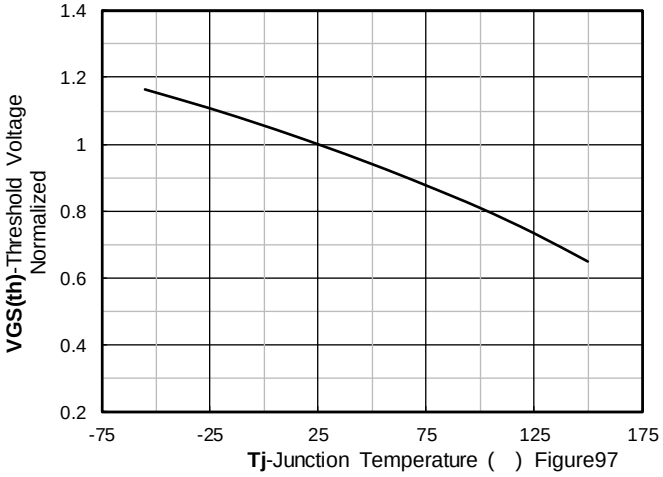


Figure9. Normalized Maximum Transient Thermal Impedance



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7KH LQIRUPDWLRQ SURYLGHG'HDÌ\ÌK3LVQ$À