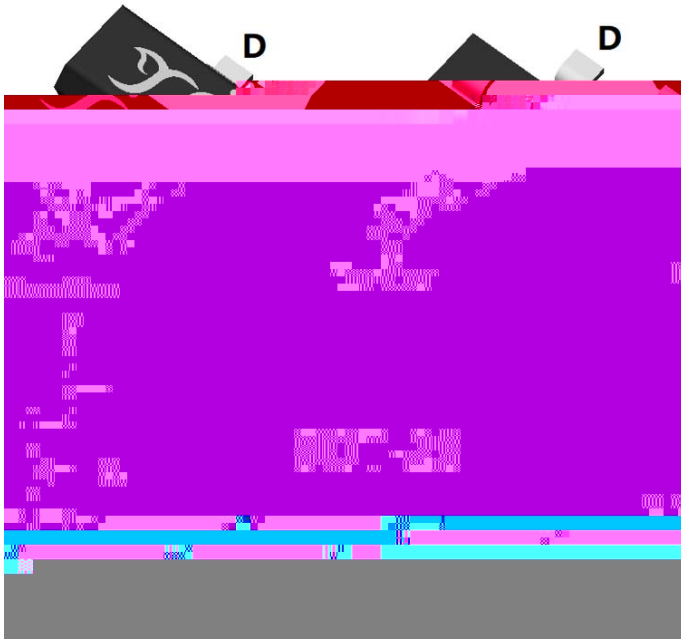




- $R_{DS(ON)}$ (at $V_{GS}=4.5V$)

100mohm
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
Gate-source Voltage		V_{GS}	± 20
Drain Current	$T_A=25$	I_D	3
	$T_A=70$		2.4
Pulsed Drain Current ^A		I_{DM}	12
Total Power Dissipation	$T_A=25$	P_D	1.2
	$T_A=70$		0.8
Thermal Resistance Junction-to-Ambient ^B		$R_{\theta JA}$	104
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150

■ Ordering Information (Example)

PREFERRED 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



YJL03N06AQ

■ 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

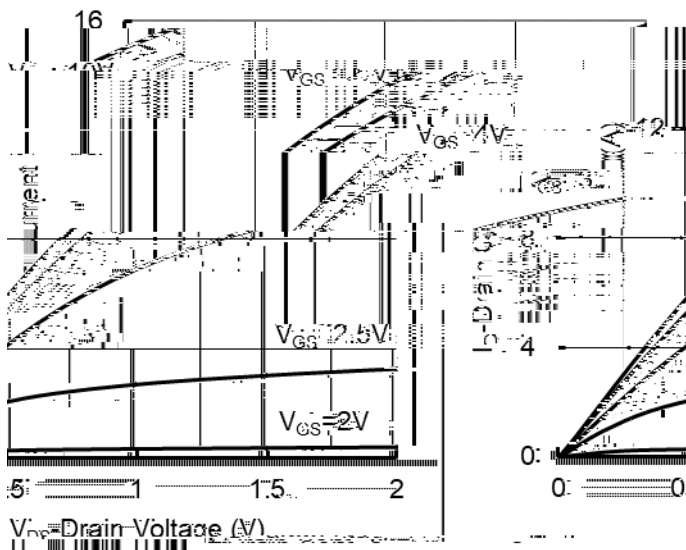


Figure1. Output Characteristics

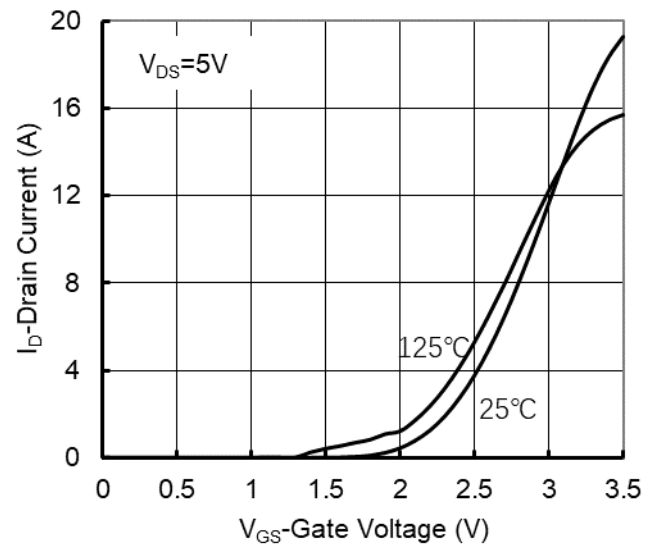


Figure2. Transfer Characteristics

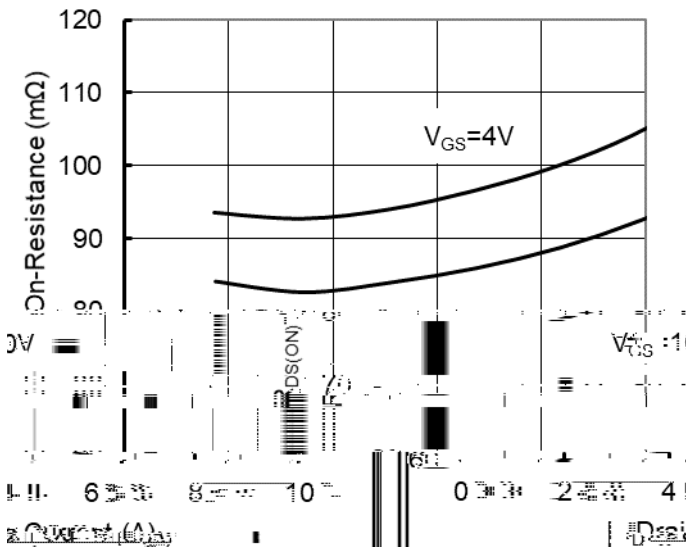


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

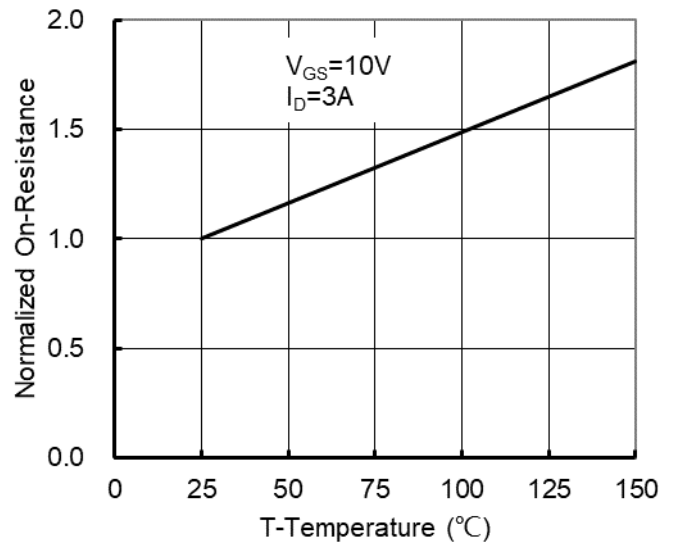
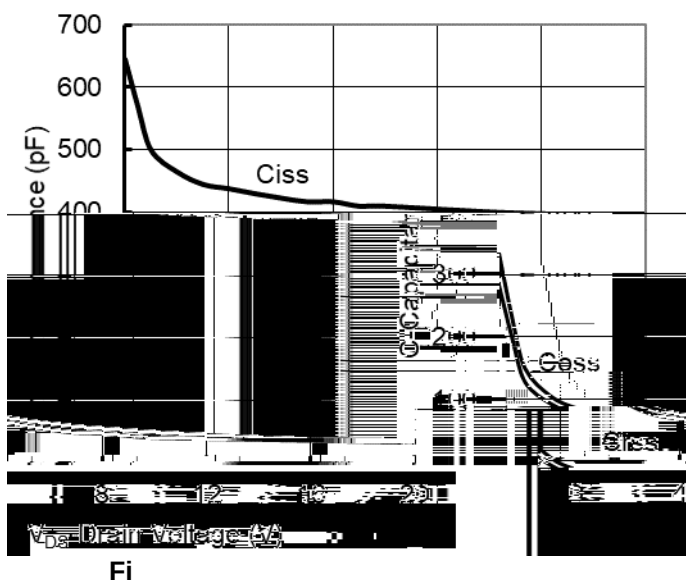


Figure 4: On-Resistance vs. Junction Temperature



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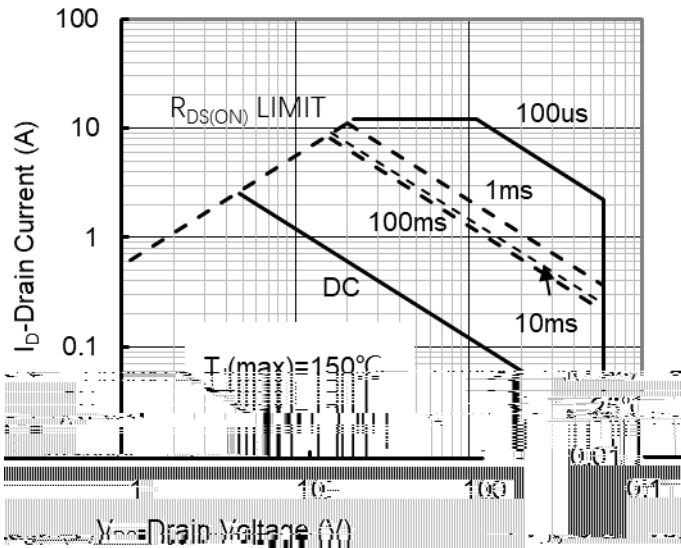


Figure7. Safe Operation Area

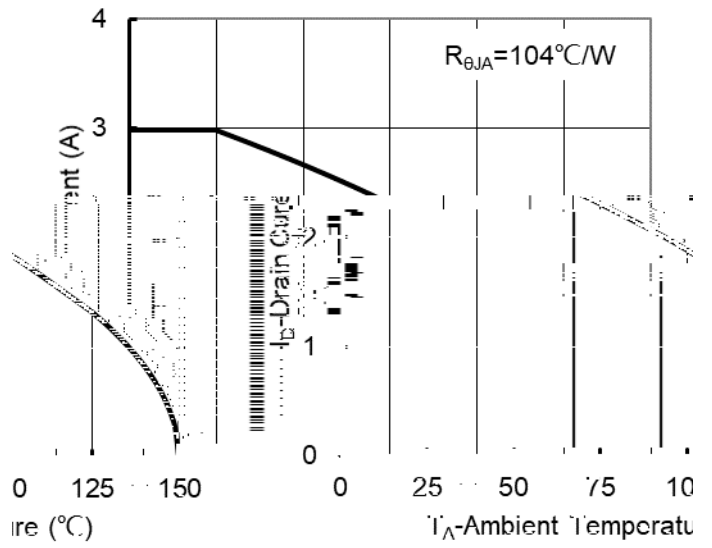


Figure8. Maximum Continuous Drain Current vs Ambient Temperature

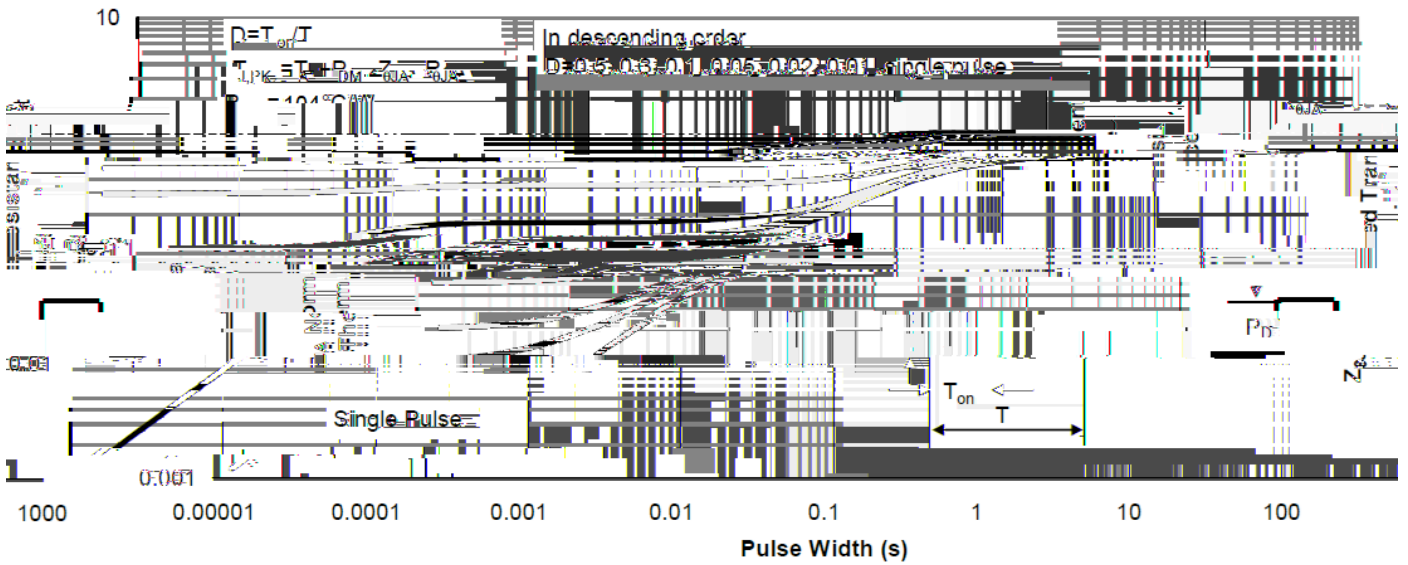


Figure9. Normalized Maximum Transient Thermal Impedance

