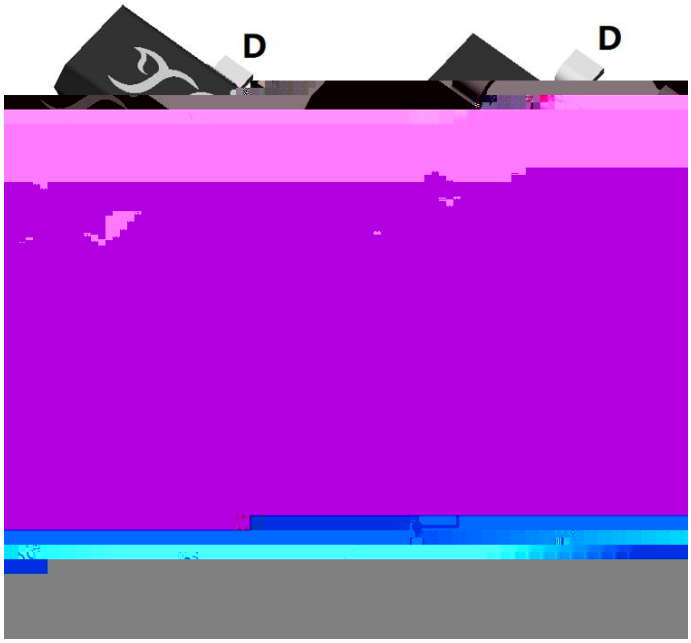
COMPLIANT



- $R_{DS(ON)}$(at V_{GS}=4.5V) 100mohm 120mohm

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

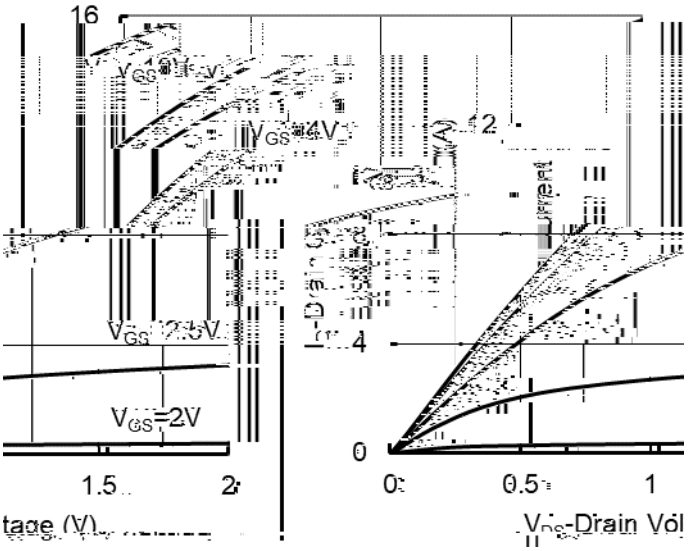
				Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	±20	V
Drain Current	T_A=25	I_D	3	A
	T_A=70		2.4	
Pulsed Drain Current [A]		I_{DM}	12	A
Total Power Dissipation	T_A=25	P_D	1.2	W
	T_A=70		0.8	W
Thermal Resistance Junction-to-Ambient [B]		$R_{\theta JA}$	104	/ W
Junction and Storage Temperature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

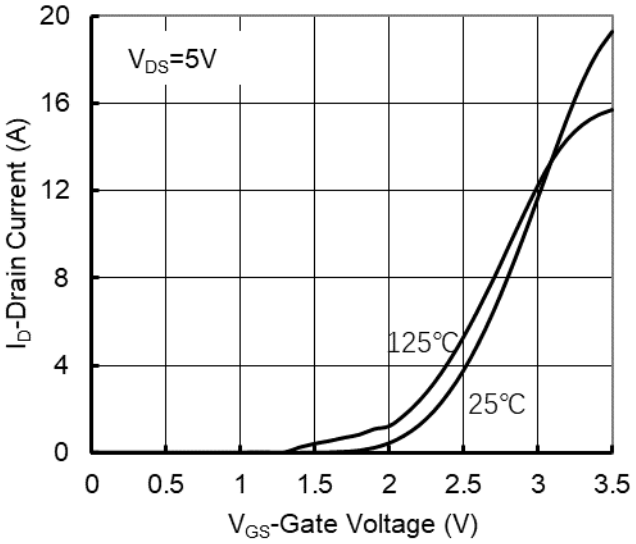
■ (Example)

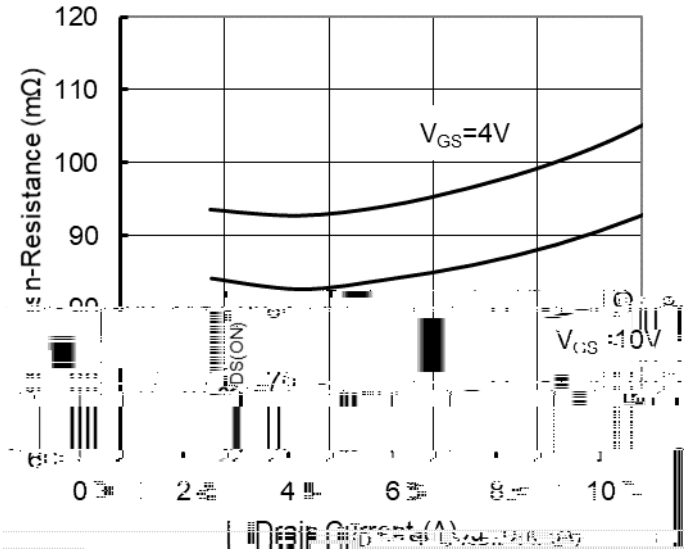
YJL03N06AQ	F2	S10.	3000	30000	120000	7“ reel

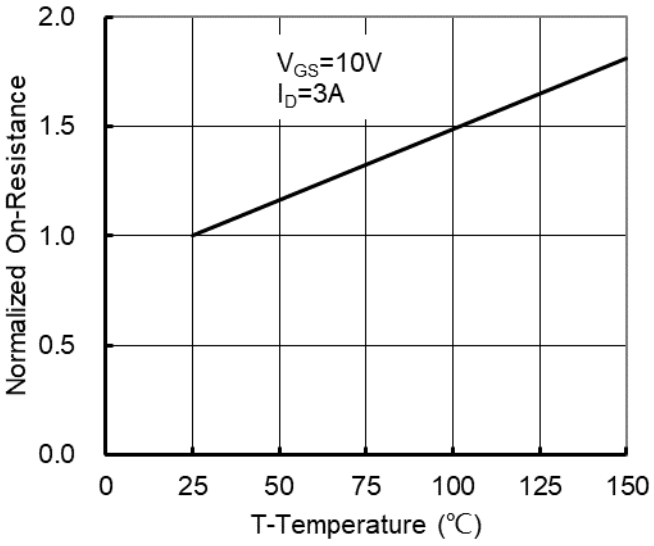
■ (T_J=25 unless otherwise noted)

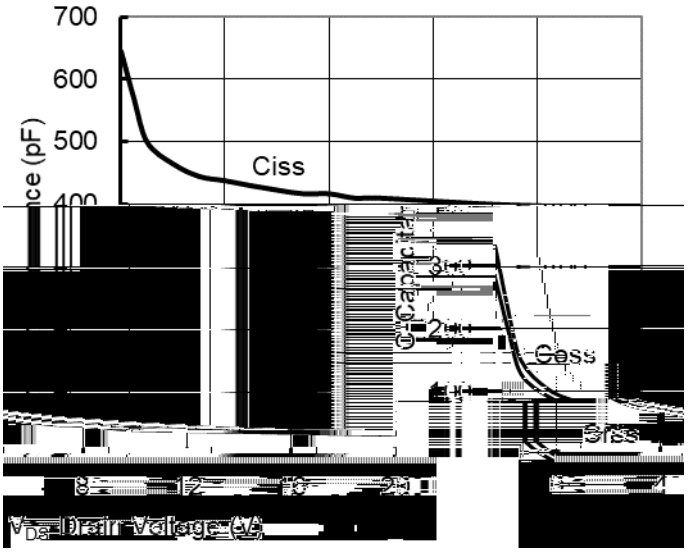
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_D=250μA	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V,V_{GS}=0V			1	μA
Gate-Body Leakage Current	I_{GSS1}	V_{GS}=±20V, V_{DS}=0V			±100	nA
	I_{GSS2}	V_{GS}=±10V, V_{DS}=0V			±50	
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}= V_{GS}, I_D=250μA	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
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		
Total Gate Charge	Q_g	V_{GS}=10V,V_{DS}=30V,I_D=3A				

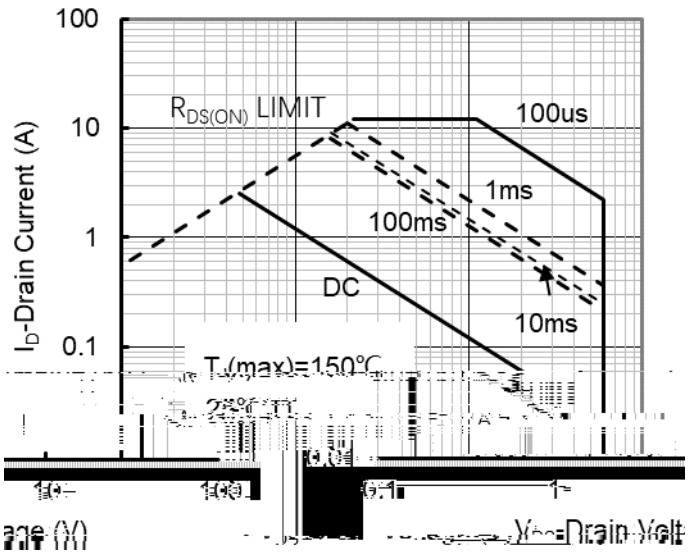

16
12
8
4
0
1.5
2
0.5
1
V_{GS}=4V
V_{GS}=2V

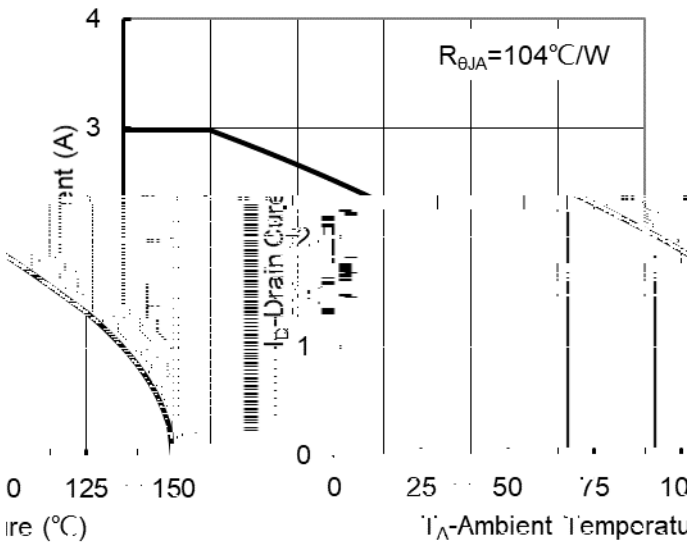

20
16
12
8
4
0
0
0.5
1
1.5
2
2.5
3
3.5
V_{DS}=5V
125℃
25℃
I_D-Drain Current (A)
V_{GS}-Gate Voltage (V)

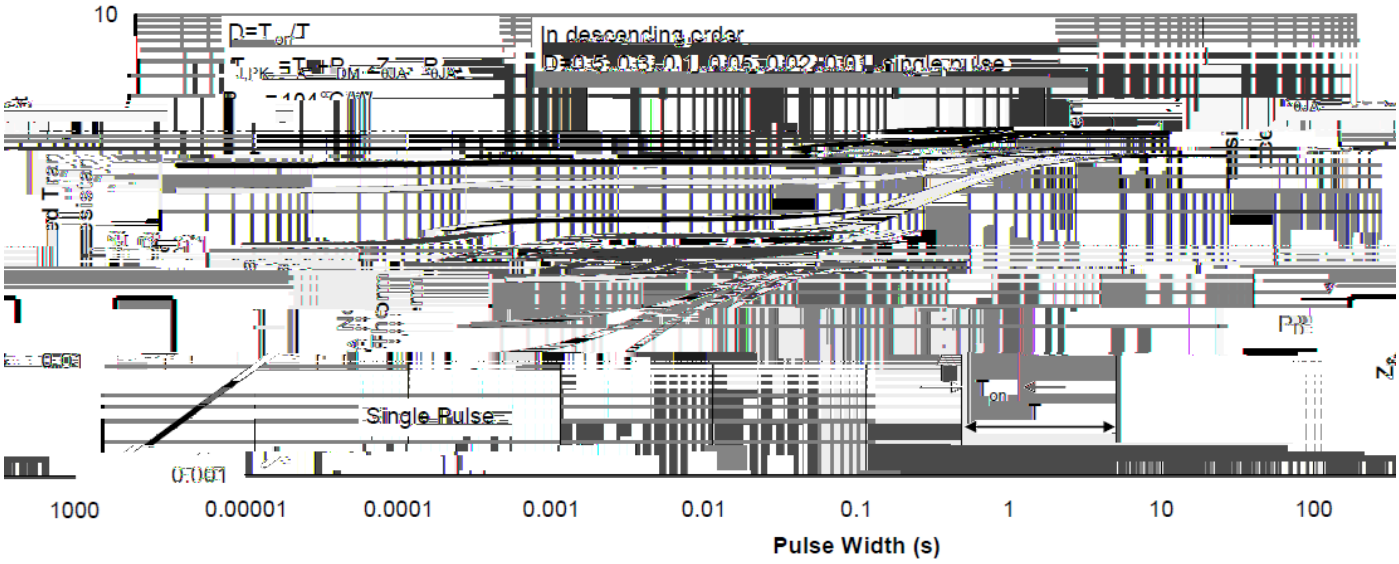

120
110
100
90
0
2
4
6
8
10
V_{GS}=4V
V_{GS}=10V

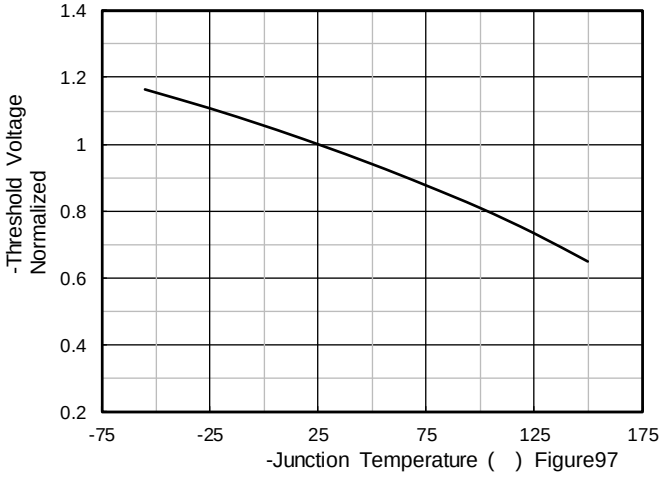

2.0
1.5
1.0
0.5
0.0
0
25
50
75
100
125
150
V_{GS}=10V
I_D=3A
Normalized On-Resistance
T-Temperature (℃)


700
600
500
Ciss
Coss
Crss


100
10
1
0.1
I_D-Drain Current (A)
$R_{DS(ON)}$ LIMIT
100us
1ms
100ms
DC
10ms
T_J(max)=150°C


4
3
1
0
$R_{\theta JA}$=104°C/W
0
125
150
25
50
75
10
T_A-Ambient Temperatu


10
$D=T_{on}/T$
In descending order
D=0.5, 0.3, 0.1, 0.05, 0.02, 0.01, single pulse
Single Pulse
T_{on}
T
1000
0.00001
0.0001
0.001
0.01
0.1
1
10
100
Pulse Width (s)


1.4
1.2
1
0.8
0.6
0.4
0.2
-Threshold Voltage Normalized
-75
-25
25
75
125
175
-Junction Temperature ( ) Figure97

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