



N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	30V
I_D	5.6A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	25mohm
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	31mohm
$R_{DS(ON)}$ (at $V_{GS}=2.5V$)	45mohm
V_{DS} Tested	

General Description

Trench Power LV MOSFET technology
High density cell design for low $R_{DS(ON)}$
High Speed switching

Applications

Battery protection
Load switch
Power management

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	30	V
Gate-source Voltage		V_{GS}	± 12	V
Drain Current	$T_A=25$	I_D	5.6	A
	$T_A=70$		4.5	
Pulsed Drain Current ^A		I_{DM}	23	A



Electrical Characteristics (T_j=25 unless otherwise noted)

Parameter	Symbol
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Typical Performance Characteristics

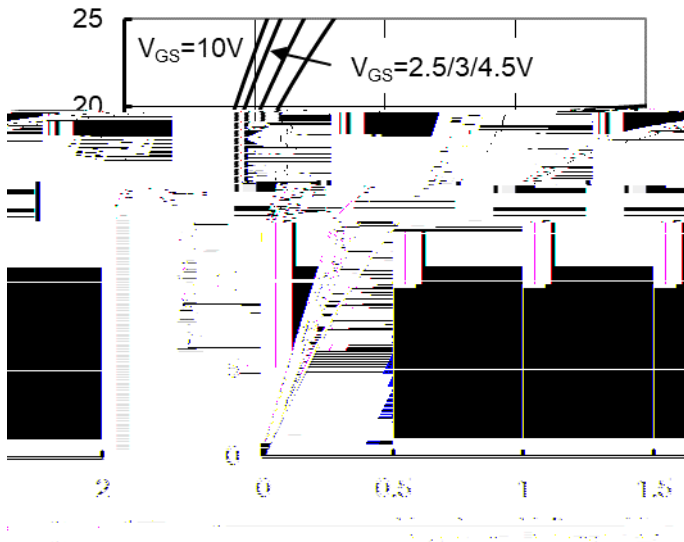


Figure1. Output Characteristics

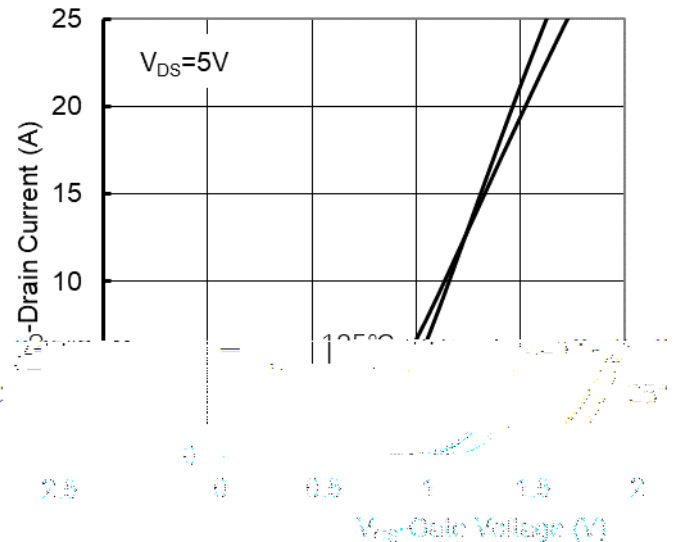


Figure2. Transfer Characteristics

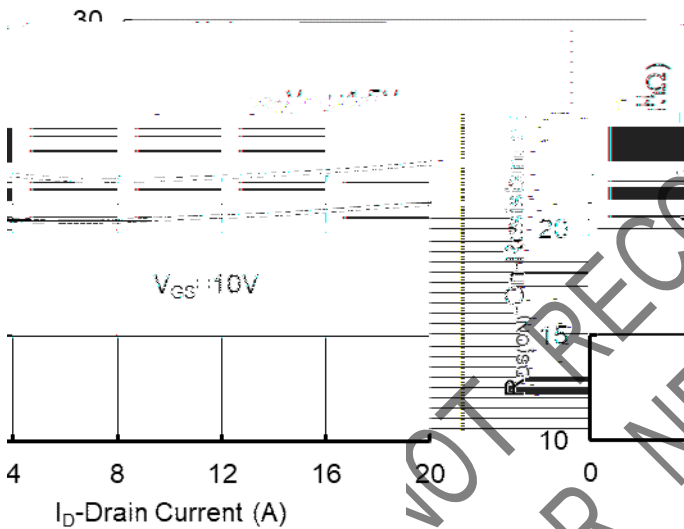


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

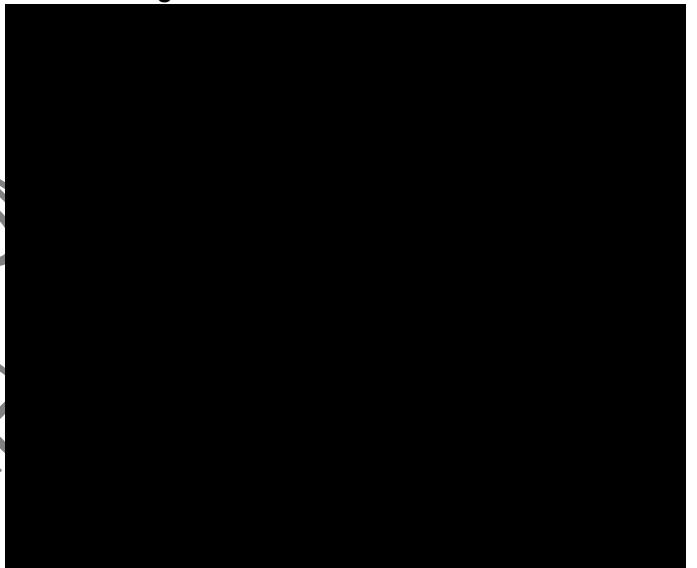


Figure 4: On-Resistance vs. Junction Temperature

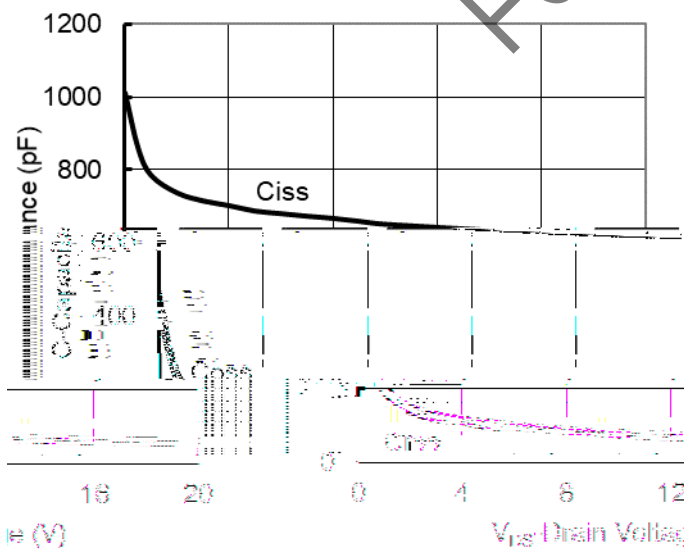


Figure5. Capacitance Characteristics

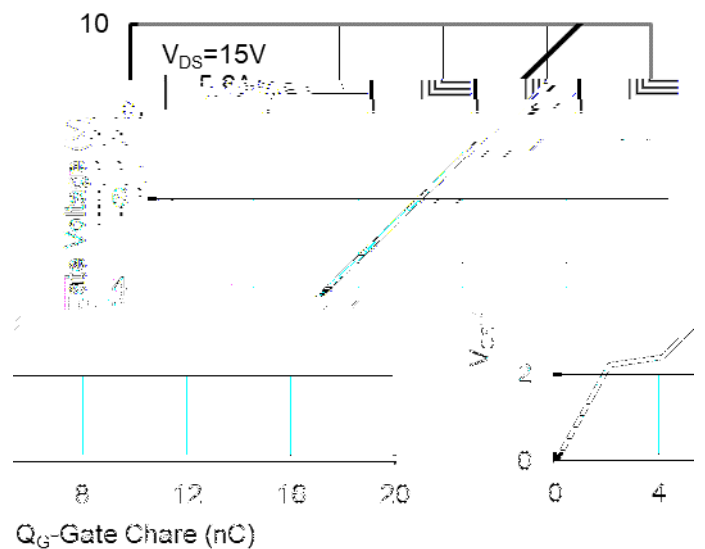


Figure6. Gate Charge

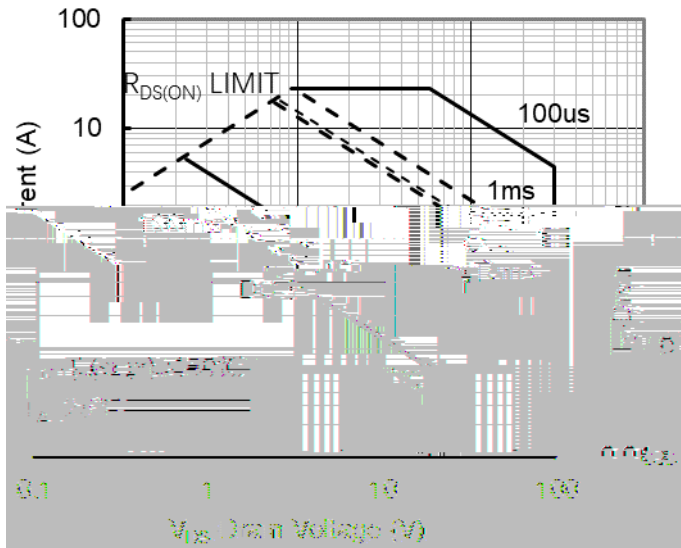


Figure7. Safe Operation Area

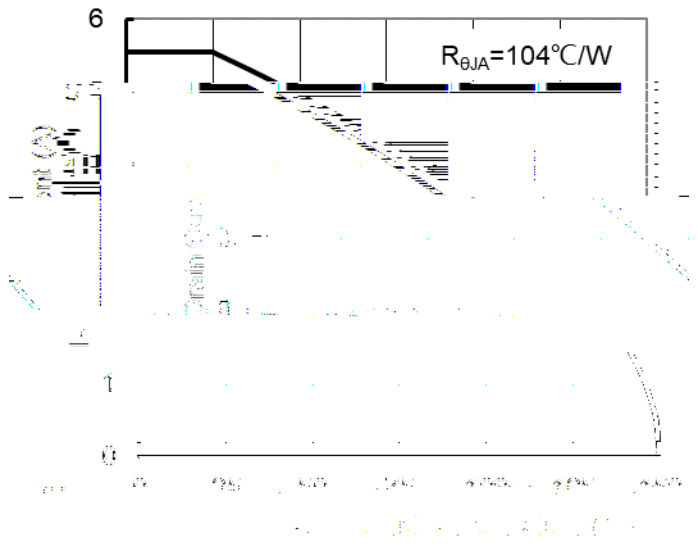


Figure8. Maximum Continuous Drain Current vs Ambient Temperature

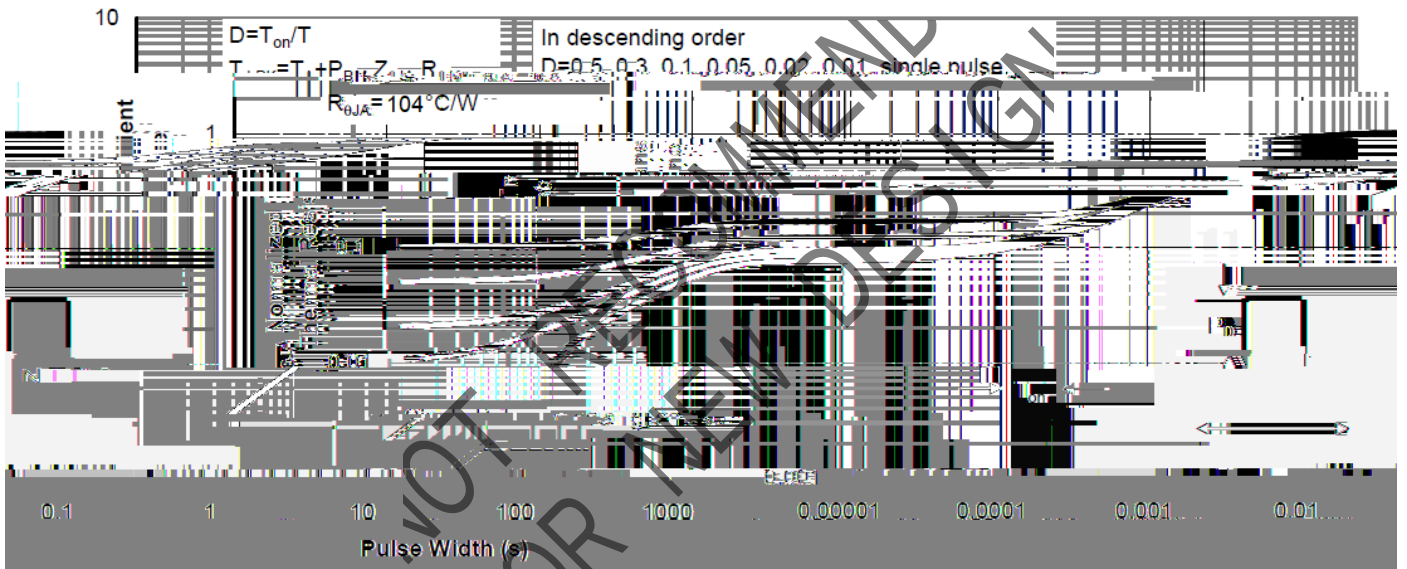


Figure9. Normalized Maximum Transient Thermal Impedance



SOT-23-6L Package information

TOP VIEW

SIDE VIEW

SIDE VIEW

DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.012	0.020	0.300	0.500
B	0.059	0.067	1.500	1.700
C	0.104	0.116	2.650	2.950
D				
G				
H	0.111	0.119	2.820	
J				
K	0.041	0.045	1.050	1.150
L	0.012	0.024	0.300	0.600
M	0.004	0.008	0.100	0.200
θ	0°	8°	0°	8°

NOT RECOMMENDED
FOR NEW DESIGN



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie2 BDI1(h)-3(o)9(c)tr3(t)54(o)-3(n)-4(i)c4(s)7()-T3(t)11(e)