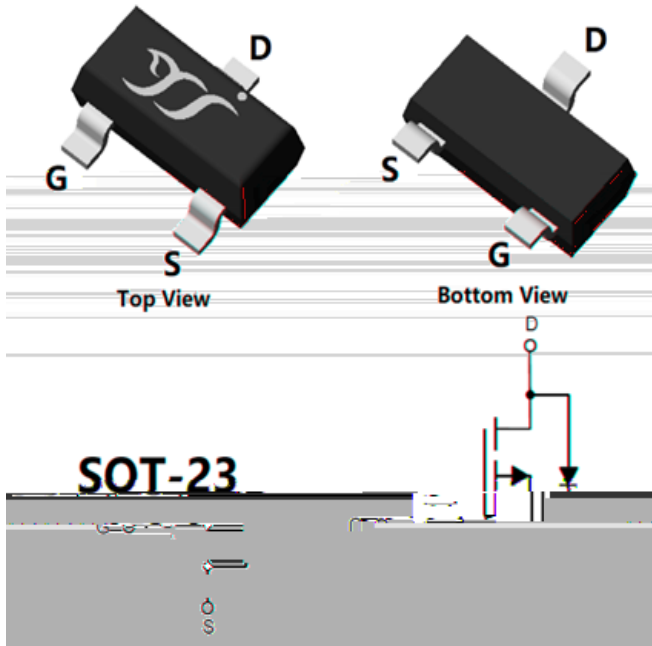




P-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	-30V
I_D	-4.4A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	55mohm
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	66mohm
$R_{DS(ON)}$ (at $V_{GS}=-2.5V$)	94mohm

General Description

High density cell design for Low $R_{DS(ON)}$
High Speed switching

alogen Free -0 Flammability Rating

Applications

Battery protection
Power management
Load switch

Absolute Maximum Ratings (T_A=25 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	-4.4	A
	T _A =70		-3.5	
Pulsed Drain Current ^A		I_{DM}/I_{SM}	-27	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_{JA}	104	/W
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
YJL3401A	F2	3401.	3000	30000	120000	7 reel



YJL3401A

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				

Typical Performance Characteristics

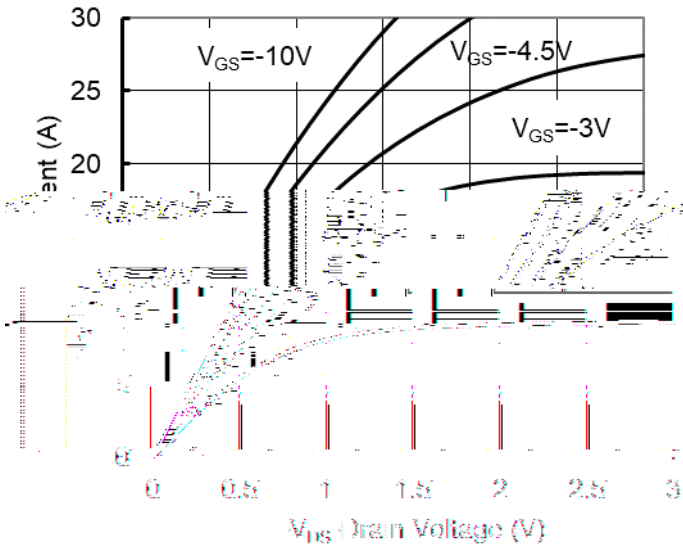


Figure 1. Output Characteristics

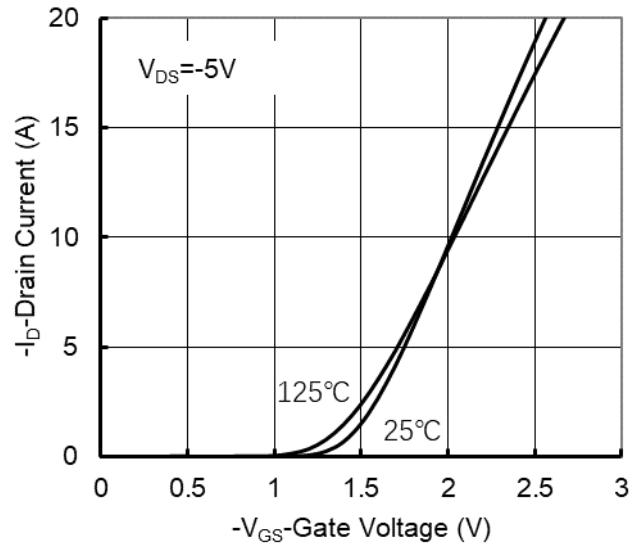


Figure 2. Transfer Characteristics

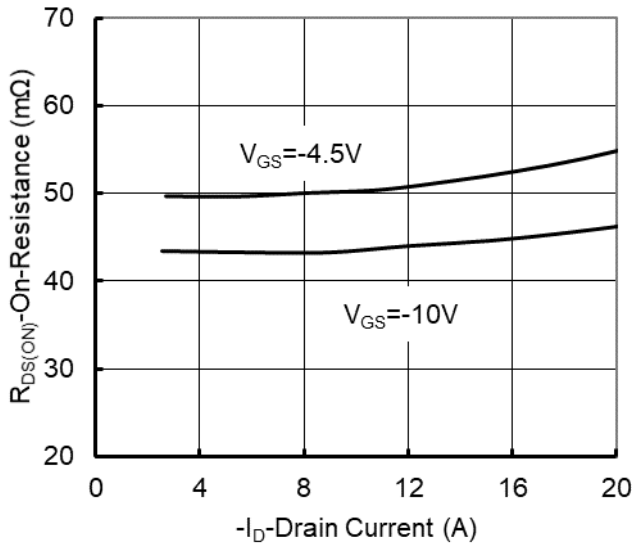


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

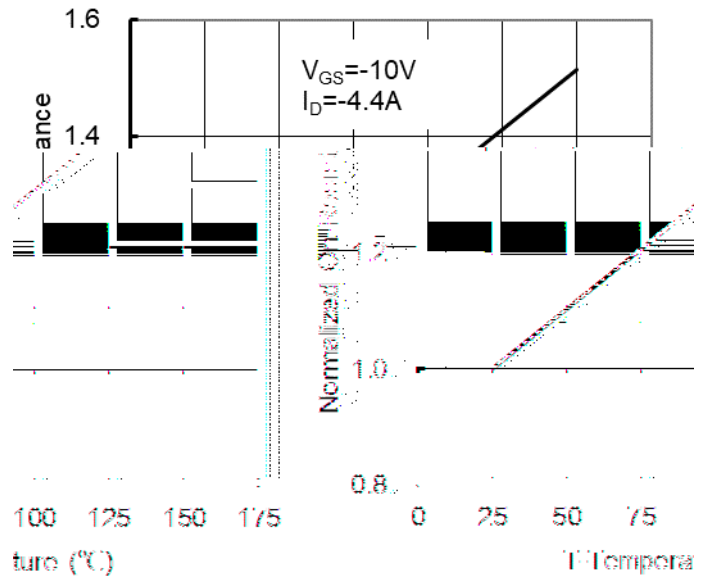


Figure 4: On-Resistance vs. Junction Temperature

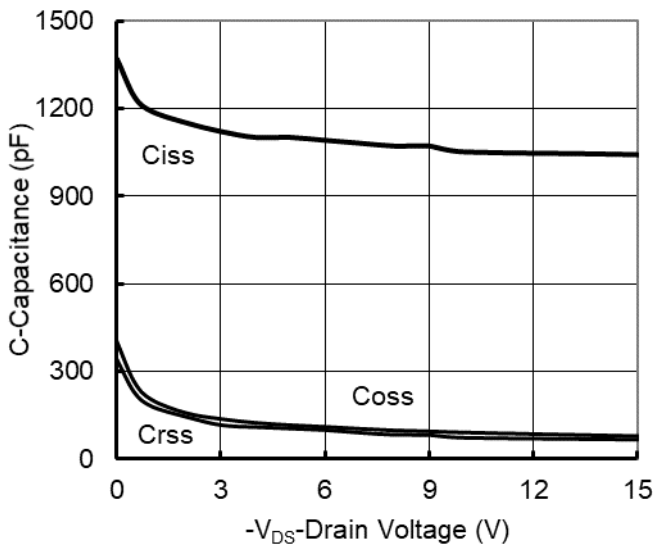


Figure 5. Capacitance Characteristics

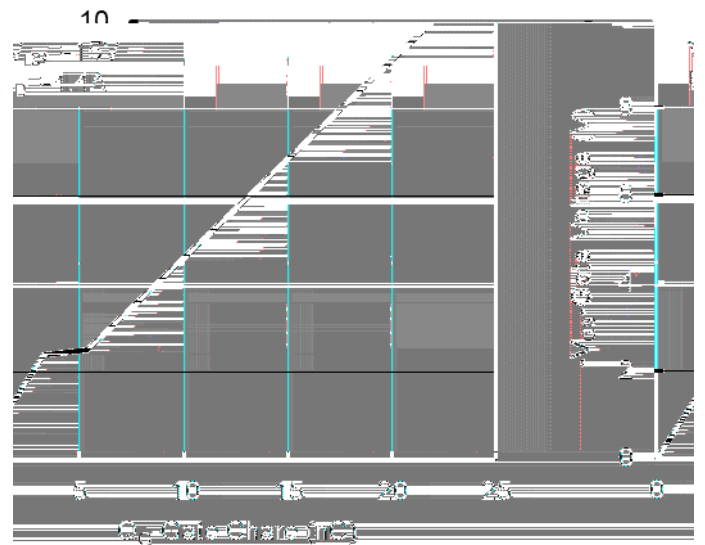


Figure 6. Gate Charge

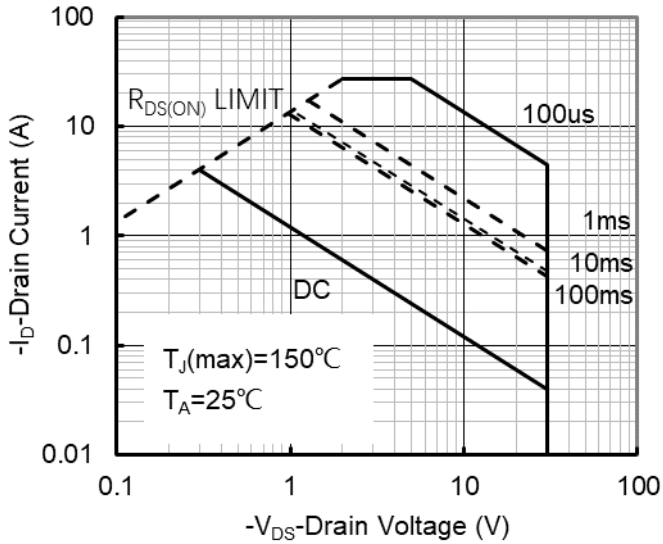


Figure 7. Safe Operation Area

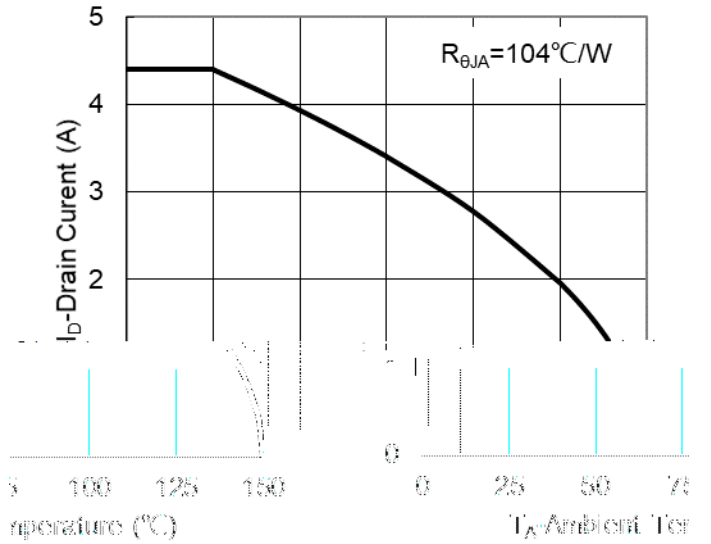


Figure 8. Maximum Continuous Drain Current vs Ambient Temperature

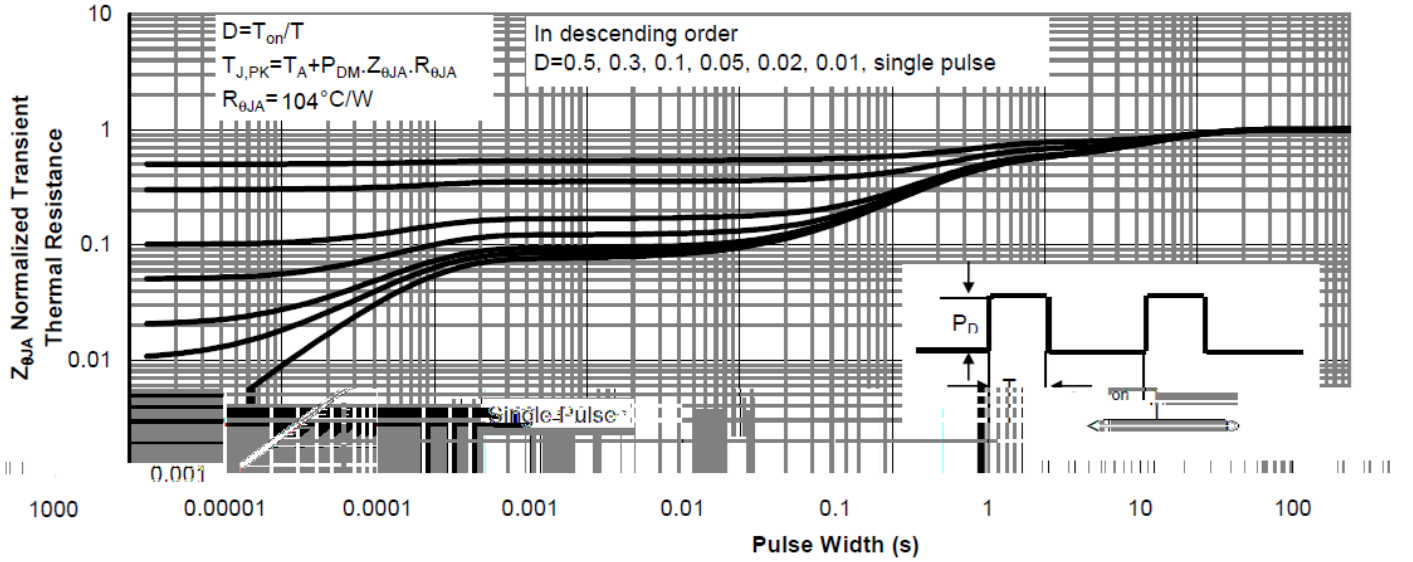
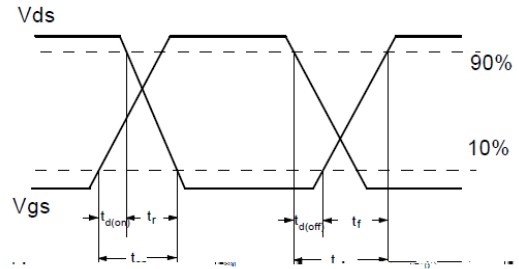
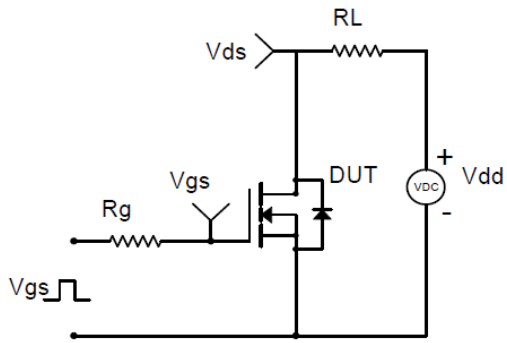
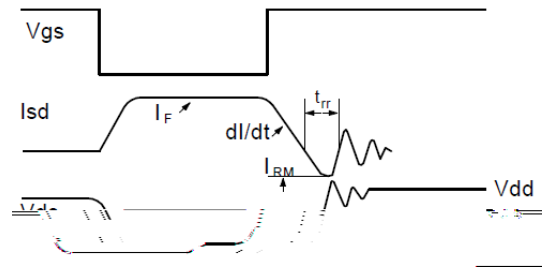
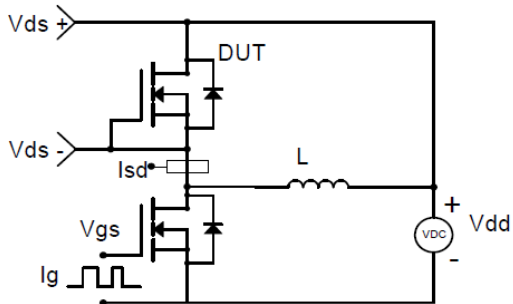


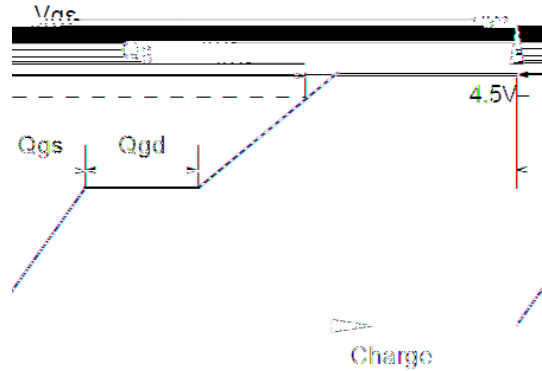
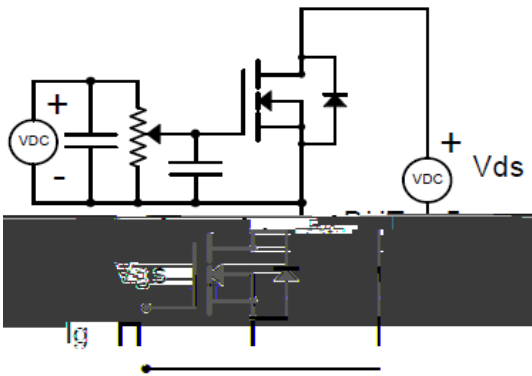
Figure 9. Normalized Maximum Transient Thermal Impedance



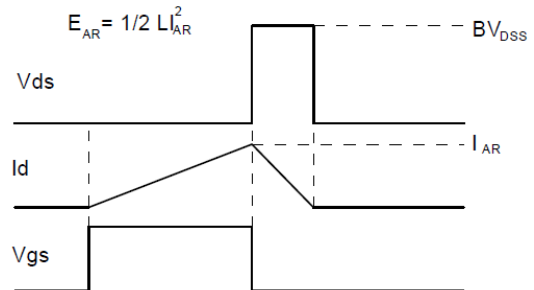
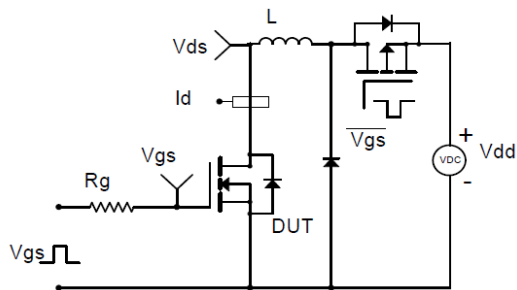
Resistive Switching Test Circuit & Waveforms



Diode Recovery Test Circuit & Waveforms



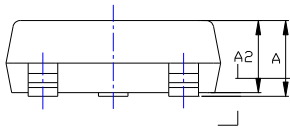
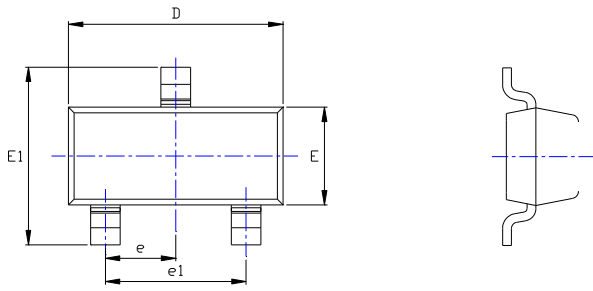
Gate Charge Test Circuit & Waveform



Unclamped Inductive Switching (U9USwitchi4)16.06 532.92 50.28 re W* n BT /F5 12 Tf



SOT-23 Package Information



UNIT mm



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