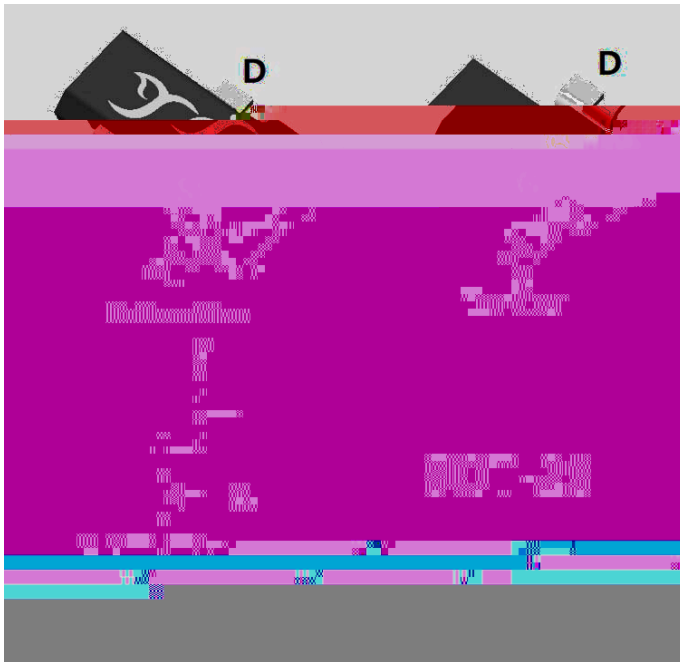




N-Channel Enhancement Mode Field Effect Transistor



Product Summary

• V_{DS}	30V
• I_D	5.6A
• $R_{DS(ON)}$ (at $V_{GS}=10V$)	29mohm
• $R_{DS(ON)}$ (at $V_{GS}=4.5V$)	40mohm

General Description

- Trench Power LV MOSFET technology
- High density cell design for low $R_{DS(ON)}$
- High Speed switching
- Part no. with suffix "Q" means AEC-Q101 qualified

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}	≤ 20	V
Drain Current	$T_A=25^\circ\text{C}$	I_D	5.6	A
	$T_A=70^\circ\text{C}$		4.5	
Pulsed Drain Current ^A		I_{DM}	30	A
Total Power Dissipation	$T_A=25^\circ\text{C}$	P_D	1.2	W
	$T_A=70^\circ\text{C}$		0.8	W
Thermal Resistance Junction-to-Ambient ^B		R_{dJA}	104	/ W

Junction and Storage Temperature Range

 T_J, T_{STG}

-55

✓ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL3404AQ	F2	R4.	3000	30000	120000	7" reel



Yangjie Electrical Characteristics (T_J=25℃)

Parameter
Static Parameter



■ Typical Performance Characteristics

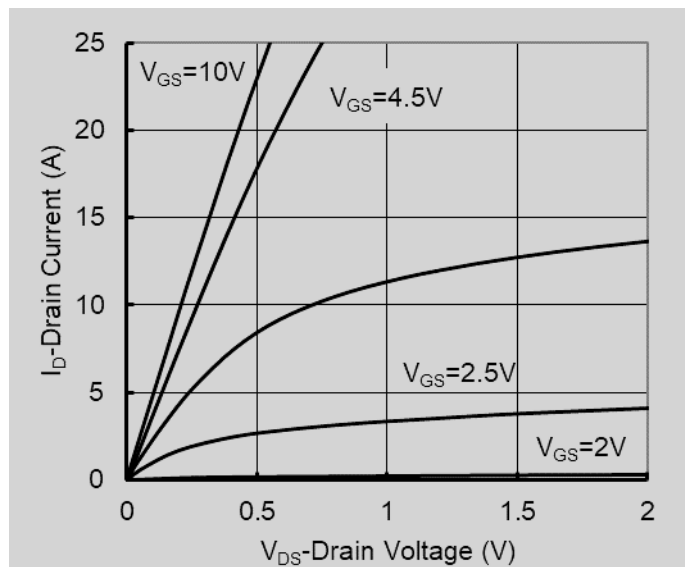


Figure1. Output Characteristics

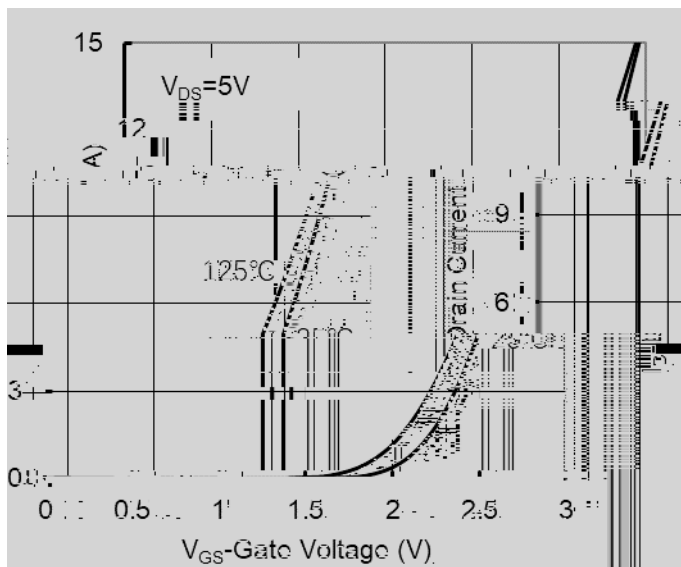


Figure2. Transfer Characteristics



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

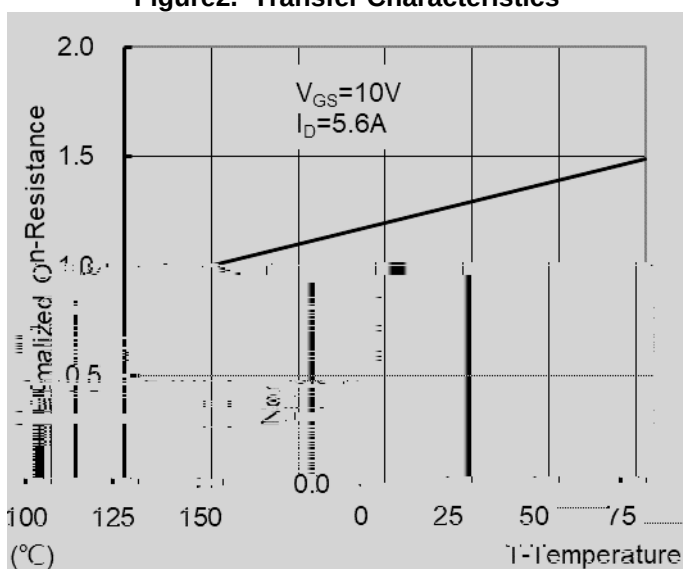


Figure 4: On-Resistance vs. Junction Temperature

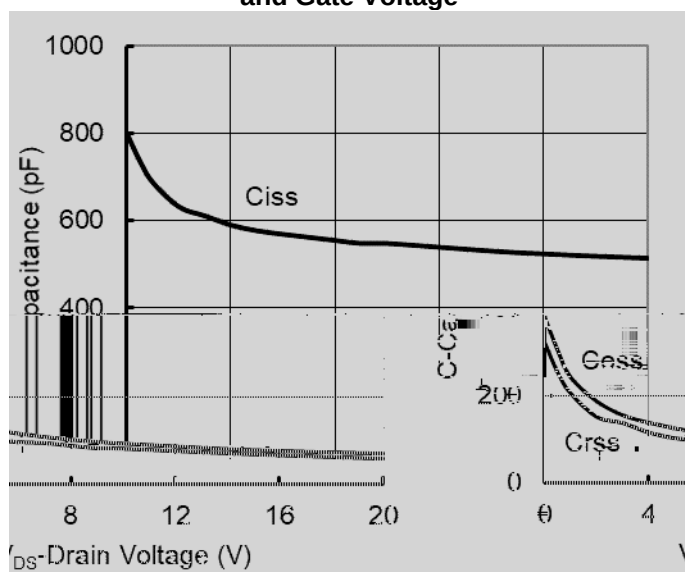


Figure5. Capacitance Characteristics

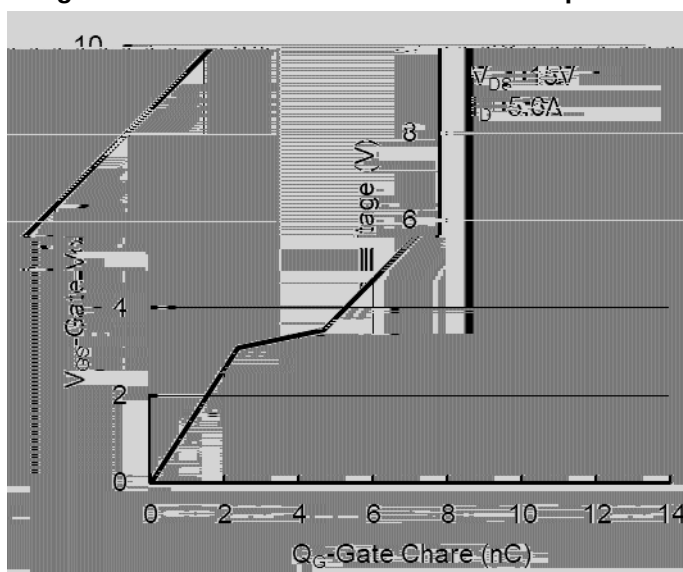


Figure6. Gate Charge

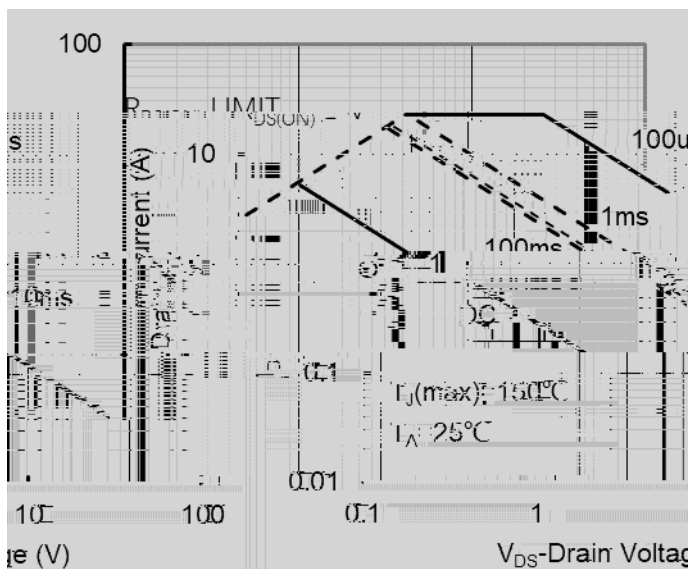


Figure7. Safe Operation Area

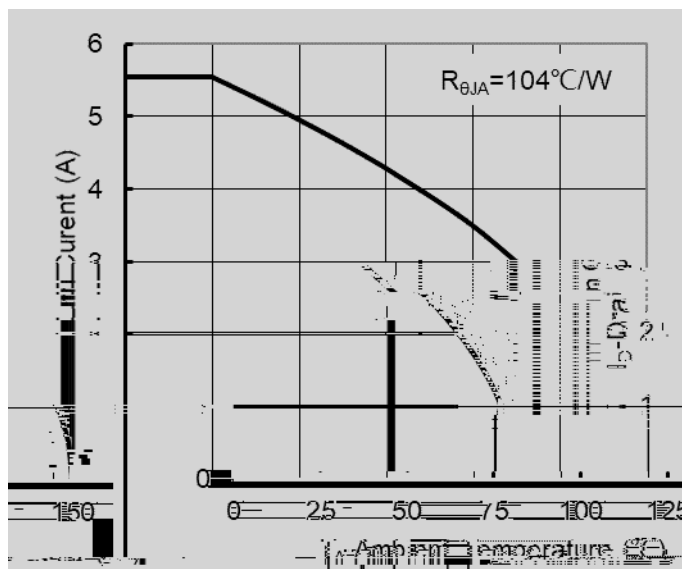


Figure8. Maximum Continuous Drain Current vs Ambient Temperature

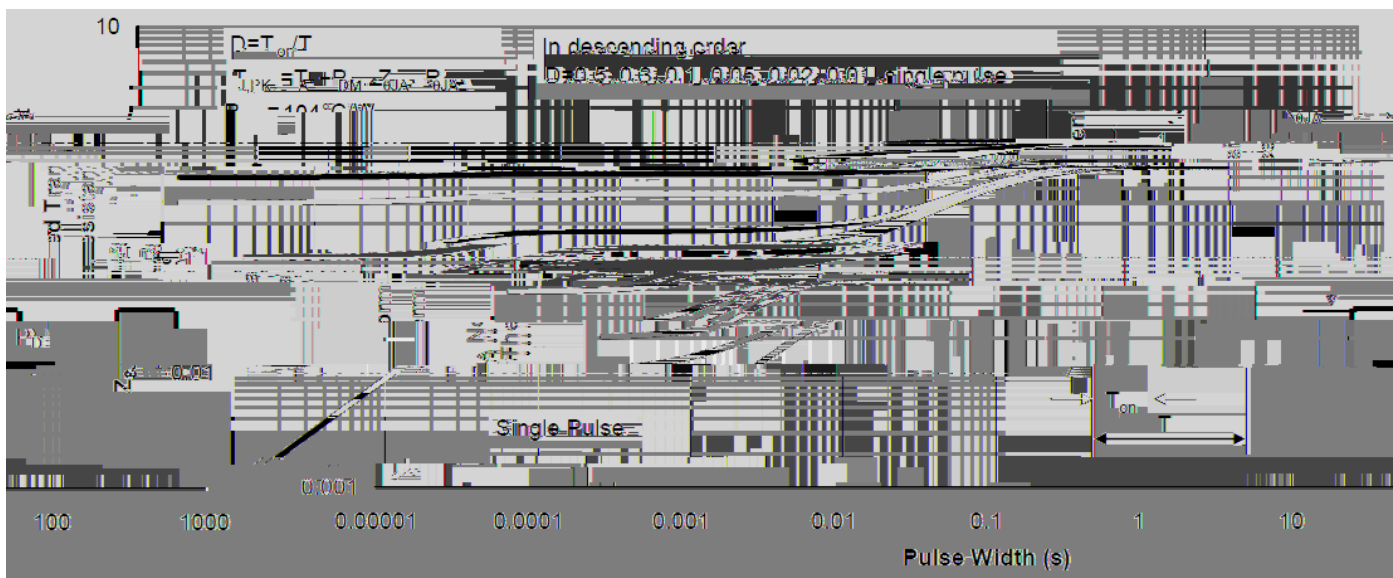
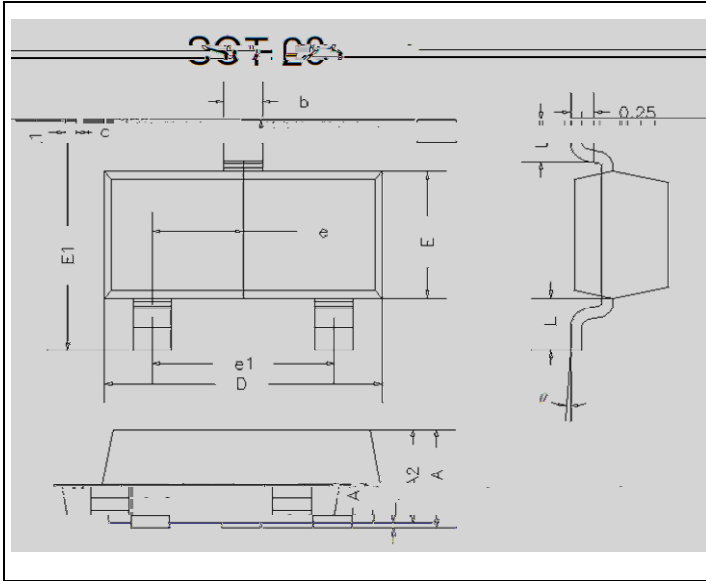


Figure9. Normalized Maximum Transient Thermal Impedance



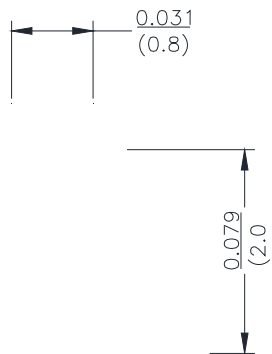
YJL3404AQ

Y SOT-23 Package information



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.045	0.90	1.15	
A1	0.000	0.004	0.00	0.10	
A2	0.035	0.041	0.90	1.05	
b	0.012	0.020	0.30	0.50	
c	0.004	0.008	0.10	0.20	
D	0.110	0.118	2.80	3.00	
E	0.047	0.055	1.20	1.40	
E1	0.089	0.100	2.25	2.55	
e	0.370TYP		0.95TYP		
e1	0.071	0.079	1.80	2.00	
L	0.220REF		0.55REF		
L1	0.012	0.020	0.30	0.50	
d	0.04	0.08	0.04	0.08	

Y SOT-23 Suggested Pad Layout





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