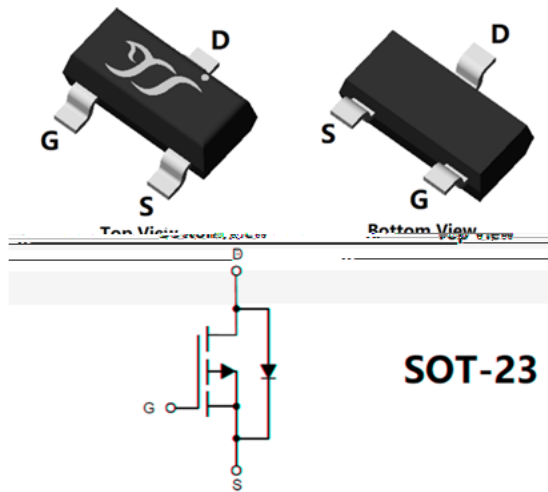




P-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	-100V
I_D	-0.8A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	600m
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	650m

General Description

Voltage controlled small signal switch
 Fast Switching Speed
 Moisture Sensitivity Level 1
 Epoxy Meets UL 94 V-0 Flammability Rating
 Halogen Free

Applications

Power Management Functions
 Motor Control
 DC-DC convertor

Absolute Maximum Ratings ($T_J=25$ unless otherwise noted)

Parameter			Symbol	Limit	Unit
Drain-source Voltage			V_{DS}	-100	V
Gate-source Voltage			V_{GS}	± 20	V
Continuous Drain Current (Note 1,2)	Steady-State	$T_A=25$	I_D	-0.8	A
		$T_A=100$		-0.5	
Pulsed Drain Current	$T_C=25$, $t=100\mu s$		I_{DM}	-6.4	A
Total Power Dissipation (Note 1,2)	Steady-State	$T_A=25$	P_D	1	W
		$T_A=100$		0.4	
Junction and Storage Temperature Range			T_J, T_{STG}	-55 +150	

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient (Note 2)	Steady-State	R	105	125	$^{\circ}W$

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL600P10AJ	F2	600P10	3000	30000	120000	



YJL600P10AJ

Typical Electrical and Thermal Characteristics Diagrams

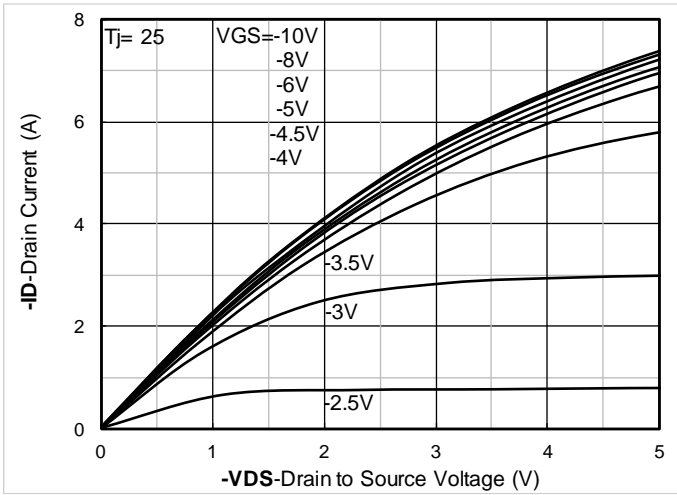


Figure 1. Output Characteristics

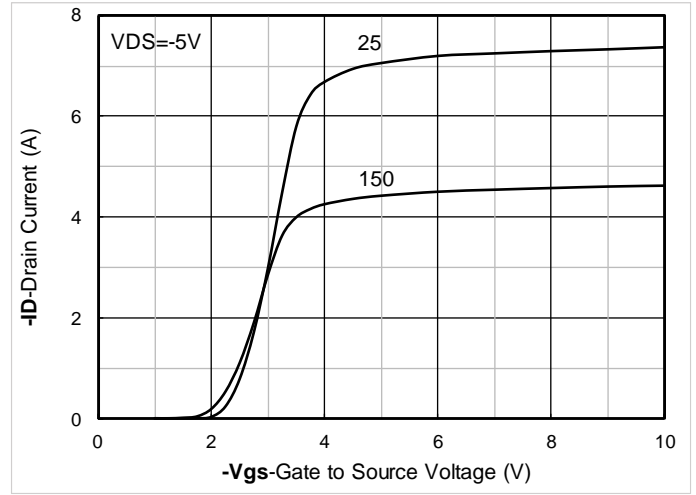


Figure 2. Transfer Characteristics

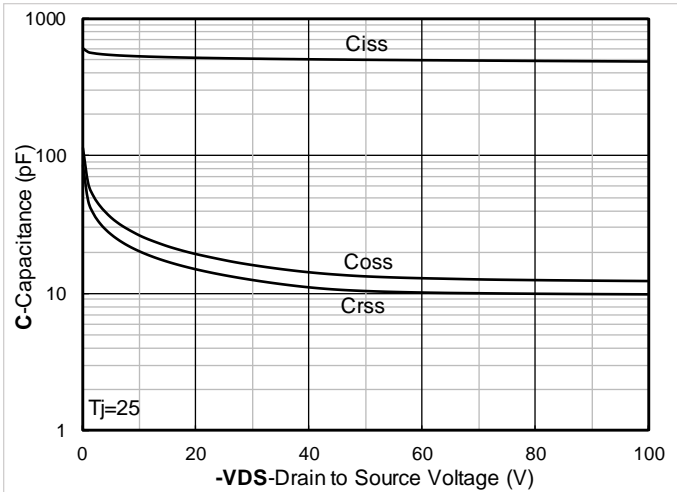


Figure 3. Capacitance Characteristics

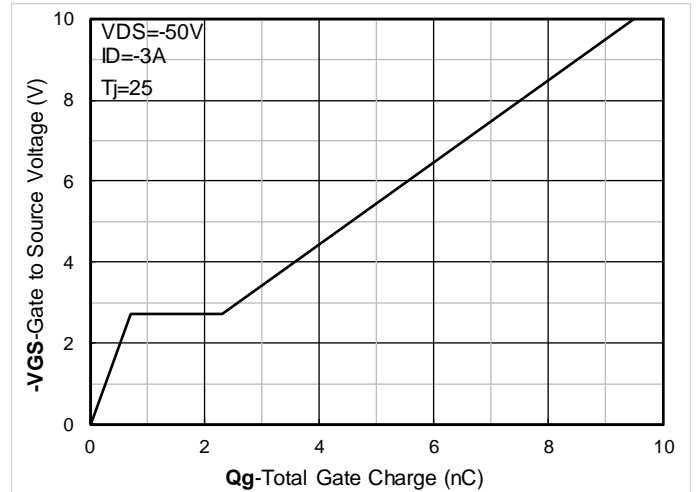


Figure 4. Gate Charge

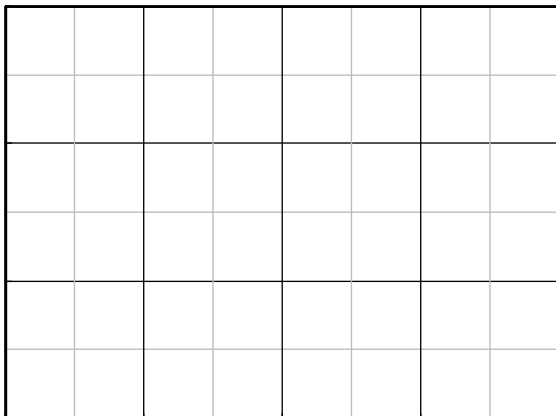


Figure 5. On-Resistance vs Gate to Source Voltage

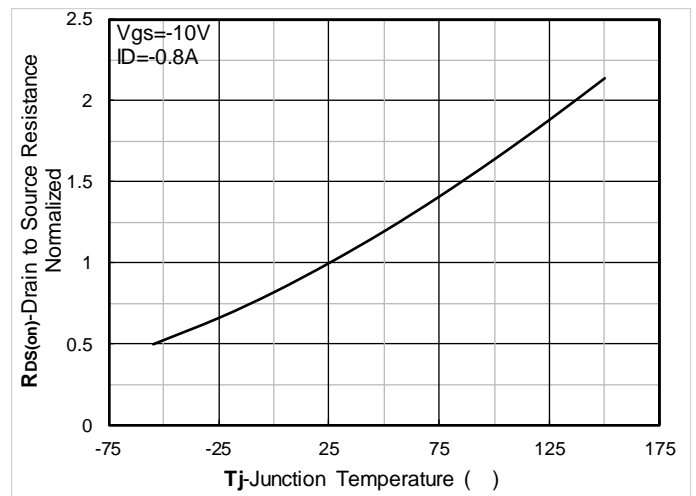


Figure 6. Normalized On-Resistance



YJL600P10AJ

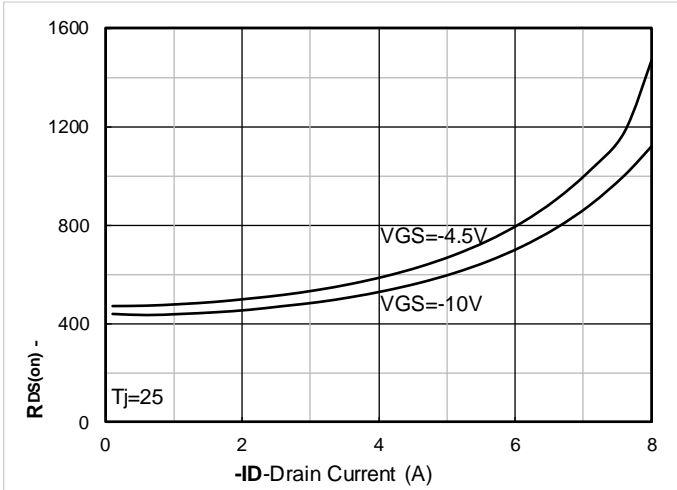


Figure 7. RDS(on) VS Drain Current

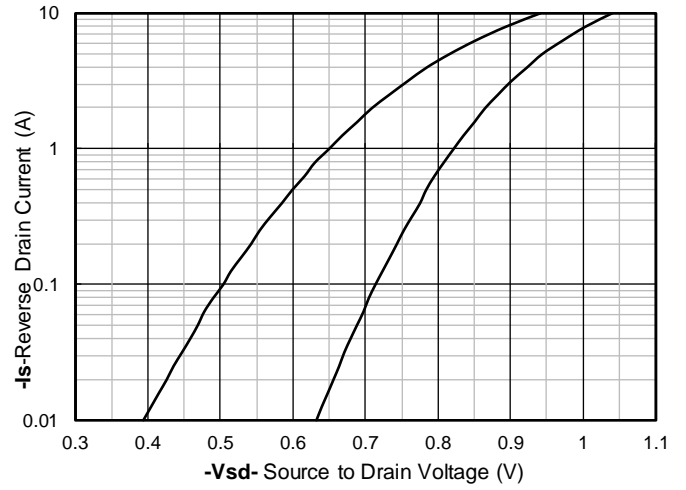


Figure 8. Forward characteristics of reverse diode

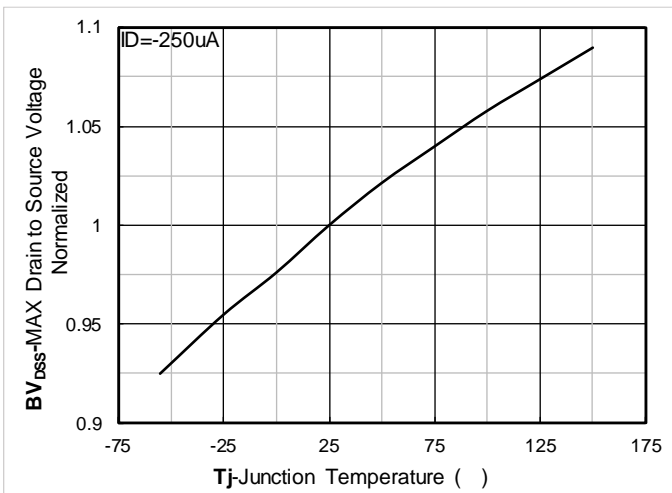


Figure 9. Normalized breakdown voltage

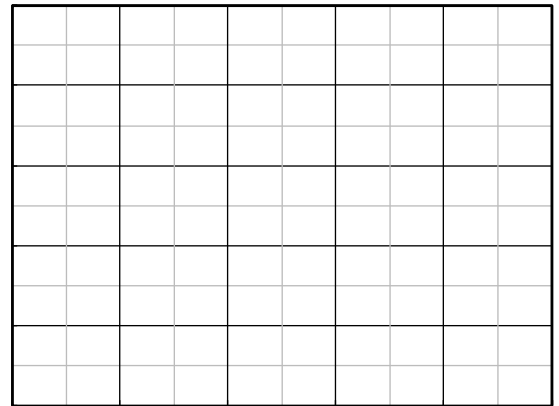
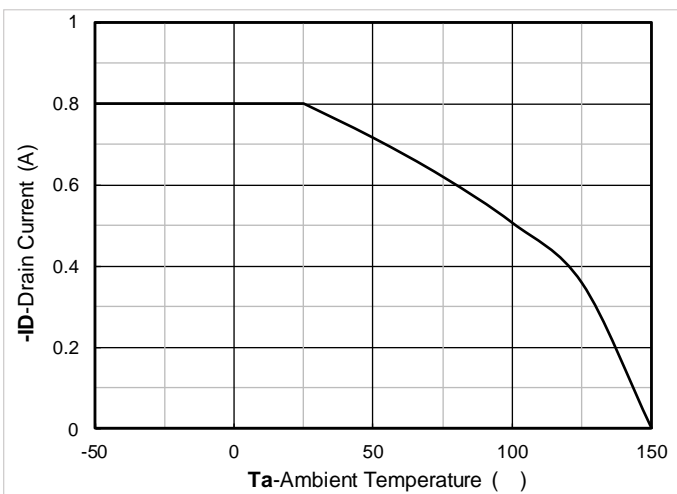


Figure 10. Normalized Threshold voltage





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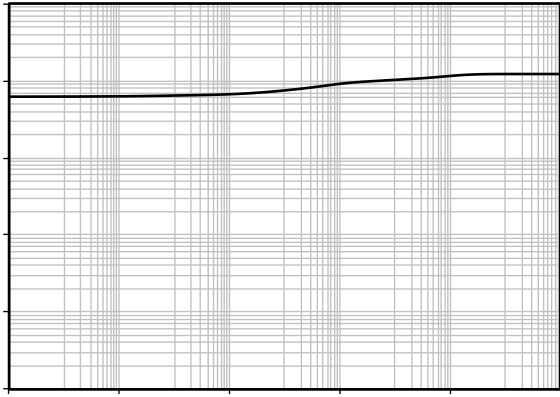


Figure 13. Maximum Transient Thermal Impedance

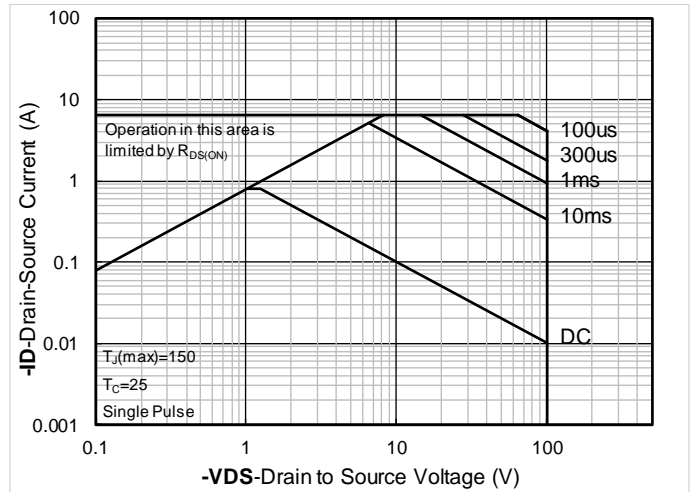
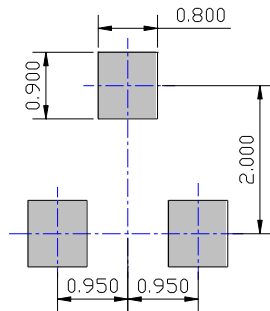
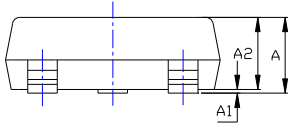
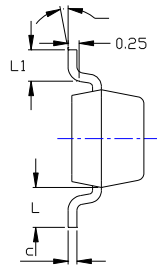
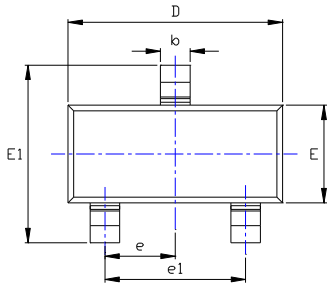


Figure 14. Safe Operation Area



YJL600P10AJ

SOT-23 Package information



UNIT mm

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
	0°	8°	0°	8°

NOTE:
 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

