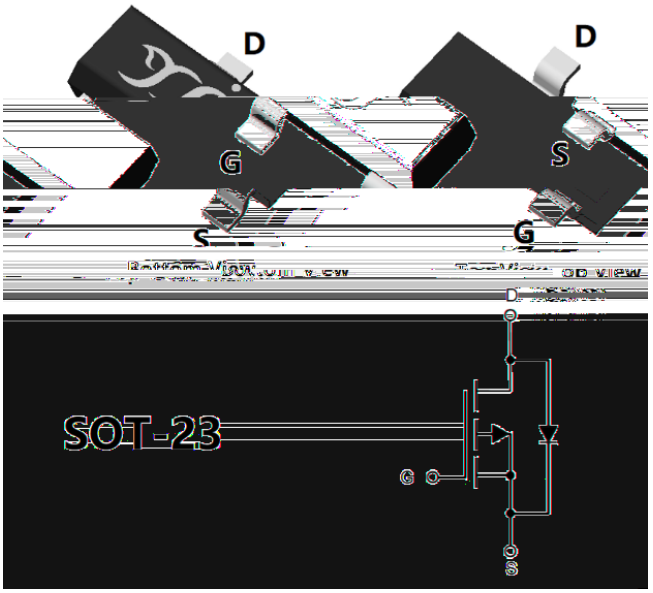
P-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	-30 V
I_D	-3 A
$R_{DS(ON)}$(at V_{GS}=-10V)	70 m
$R_{DS(ON)}$(at V_{GS}=-4.5V)	105 m

General Description

Trench Power LV MOSFET technology
High density cell design for Low RDS(ON)
High Speed switching

Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

PWM applications
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}	±20	V
Drain Current	T_A=25	I_D	-3	A
	T_A=100		-1.9	
Pulsed Drain Current [A]		I_{DM}	-20	A
Total Power Dissipation [B]	T_A=25	P_D	0.8	W
	T_A=100		0.3	
Junction and Storage Temperature Range		T_J ,T_{STG}	-55 +150	

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient [C]	Steady-State	R	120	150	/W

Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL2303B	F2	$S3_B$·	3000	30000	120000	7 reel

Electrical Characteristics (T_J=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	V				

■Typical Electrical and Thermal Characteristics Diagrams

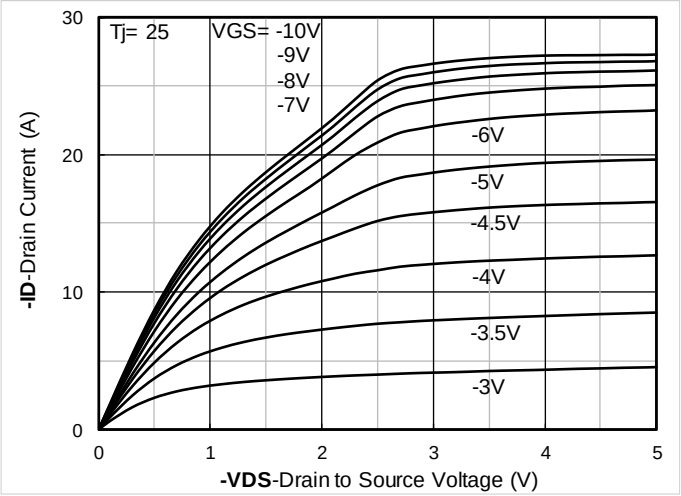


Figure 1. Output Characteristics

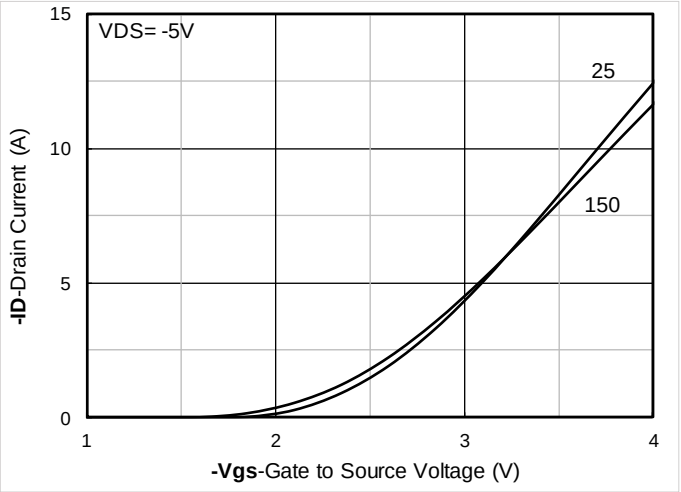


Figure 2. Transfer Characteristics

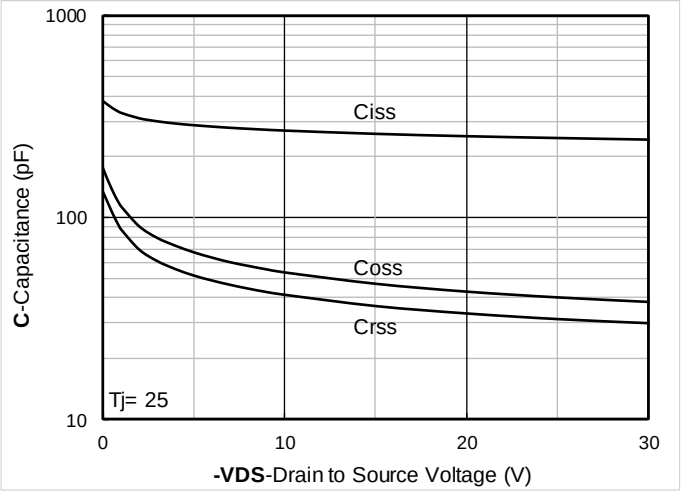


Figure 3. Capacitance Characteristics

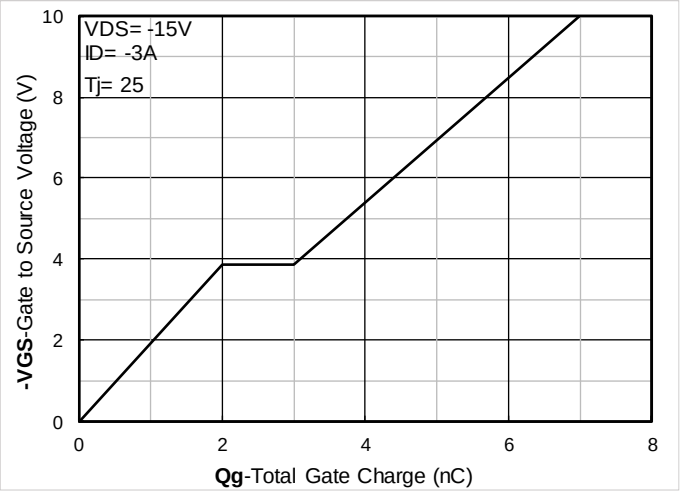


Figure 4. Gate Charge

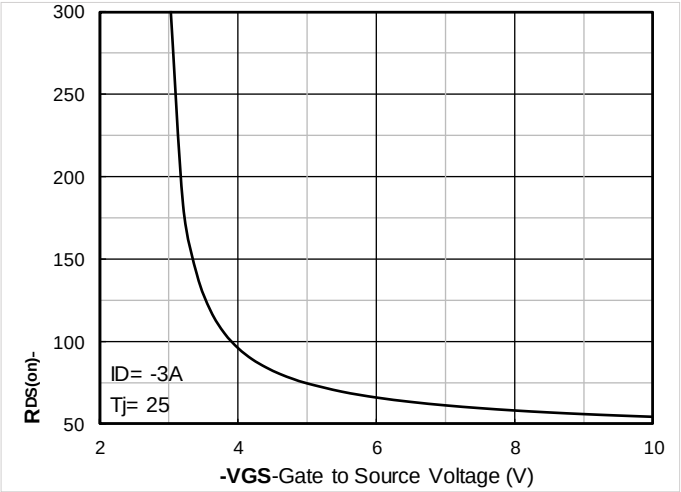


Figure 5. On-Resistance vs Gate to Source Voltage

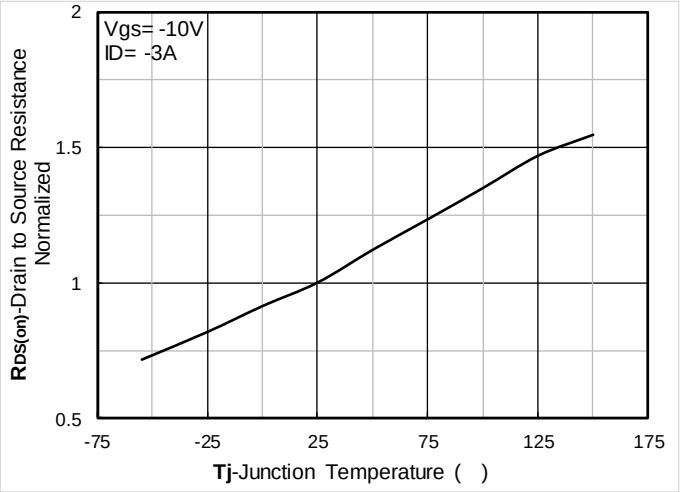


Figure 6. Normalized On-Resistance

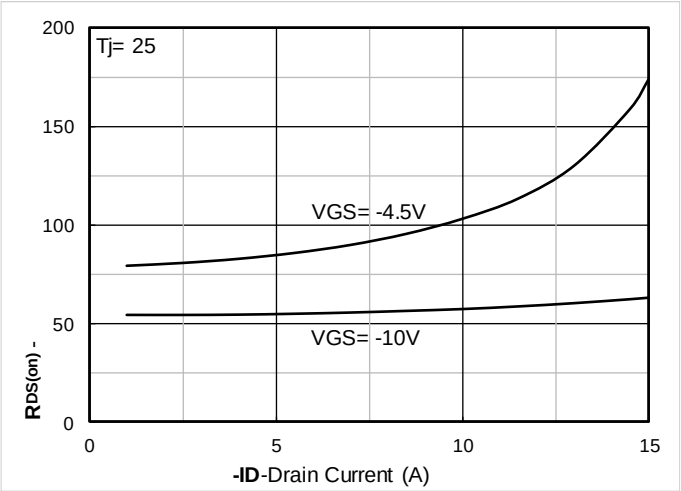


Figure 7. $R_{DS(on)}$ VS Drain Current

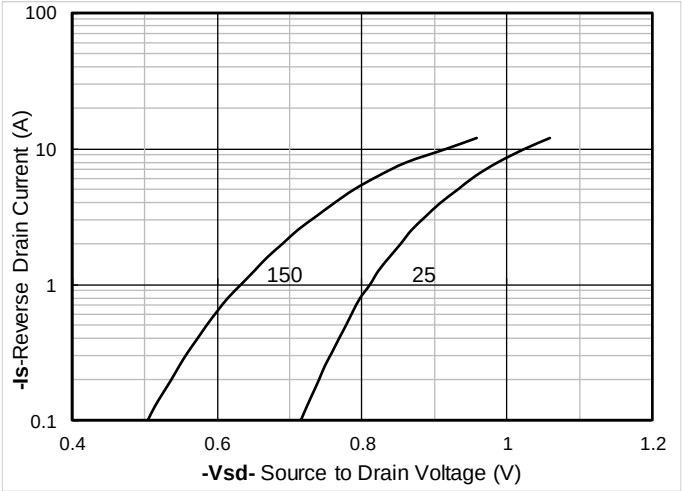


Figure 8. Forward characteristics of reverse diode

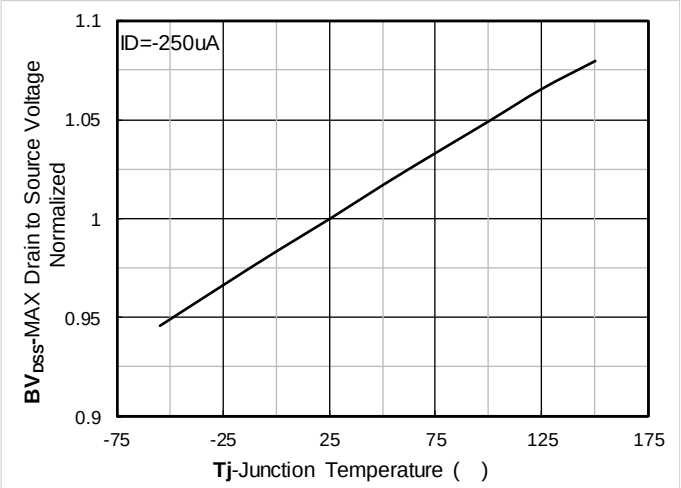


Figure 9. Normalized breakdown voltage

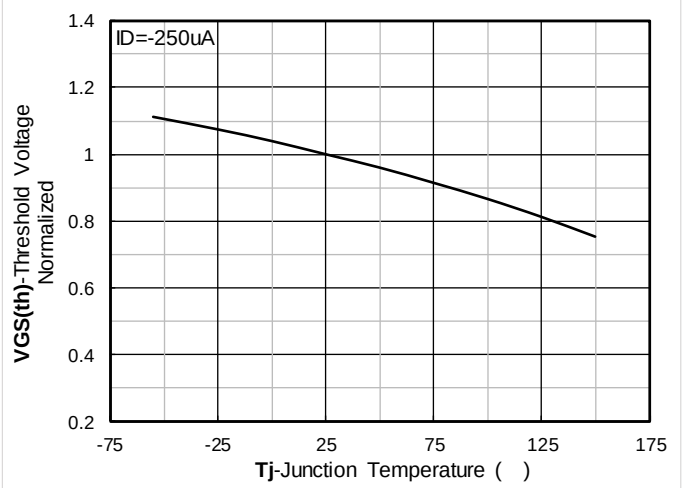


Figure 10. Normalized Threshold voltage

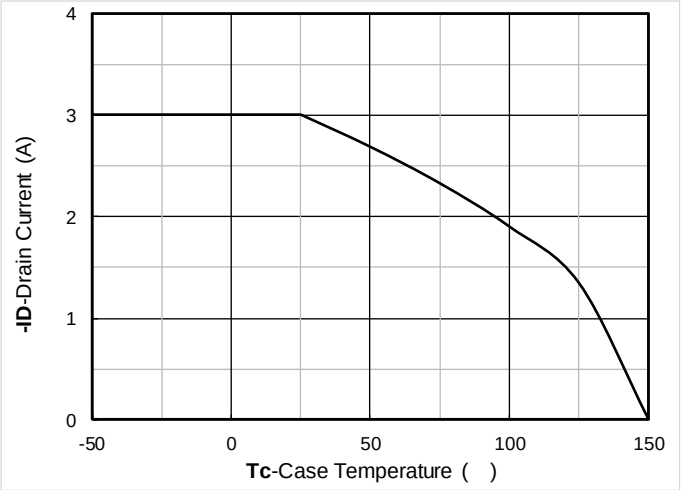


Figure 11. Current dissipation

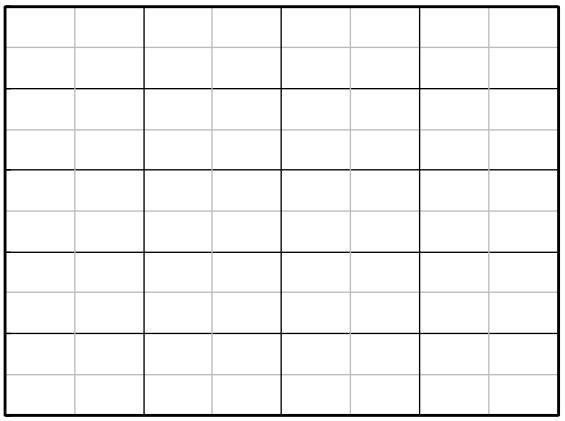


Figure 12. Power dissipation

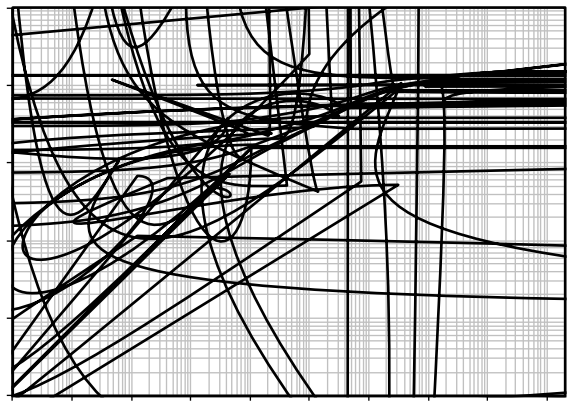


Figure 13. Maximum Transient Thermal Impedance

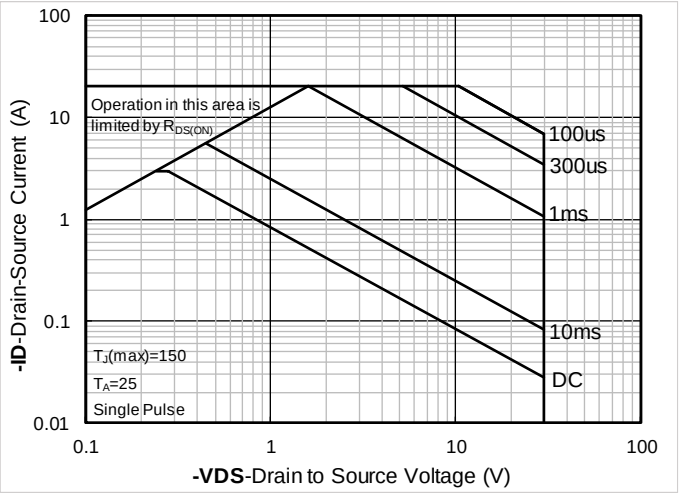
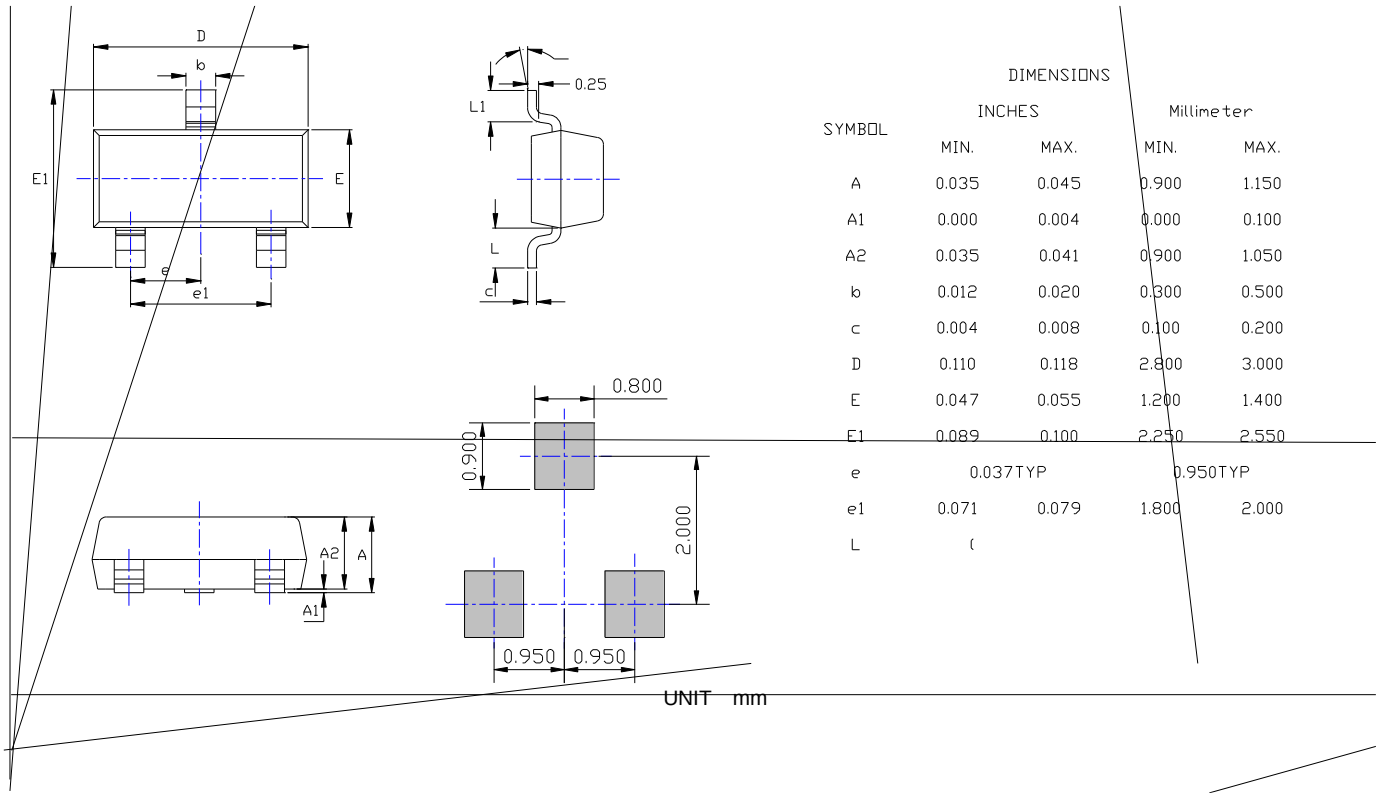


Figure 14. Safe Operation Area

SOT-23 Package information



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	(			

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