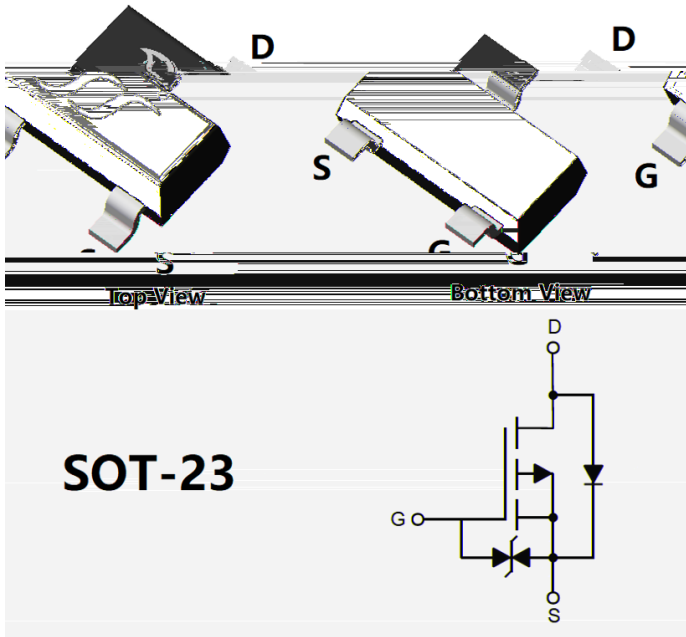


P-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	-20 V
I_D	-5 A
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	40 m
$R_{DS(ON)}$ (at $V_{GS}=-2.5V$)	70 m
ESD Protected Up to 2.0KV (HBM)	

General Description

- Split gate trench MOSFET technology
- Low $R_{DS(on)}$ & FOM
- Extremely low switching loss
- Excellent stability and uniformity
- Y r n) n r r r)h n):
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Y n) j jpn n
- Y jkn)n r n

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

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	-20	V
Gate-source Voltage	V_{GS}	± 10	V
Drain Current	I_D	$T_A=25$	-5
		$T_A=100$	-3.2
Pulsed Drain Current ^A	I_{DM}	-30	A
Total Power Dissipation ^C	P_D	$T_A=25$	1
		$T_A=100$	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 ^D	$R_{\theta J}$	100	120	$^{\circ}W$

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL3415KC	F2	3415C	3000	30000	120000	reel

Typ	Max	Units
-	-	V
-	-1	J
-	-100	
-	±10	
-0.85	-1.25	V
28	40	
50	70	
-0.9	-1.2	V
16	-	
-	-5	A

120 - pF



Typical Electrical and Thermal Characteristics Diagrams

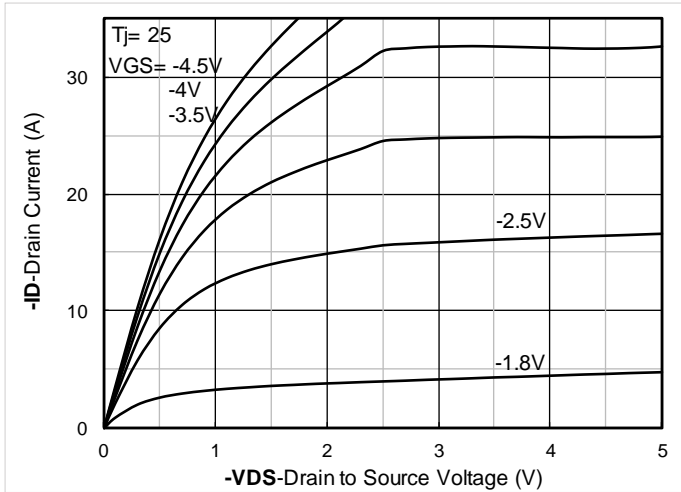


Figure 1. Output Characteristics

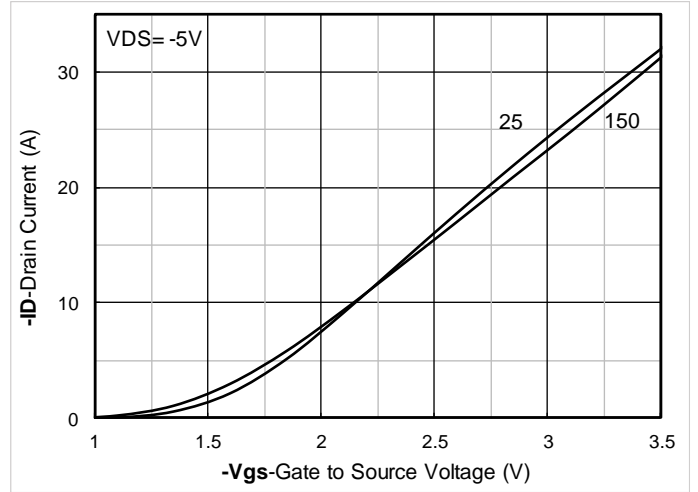


Figure 2. Transfer Characteristics

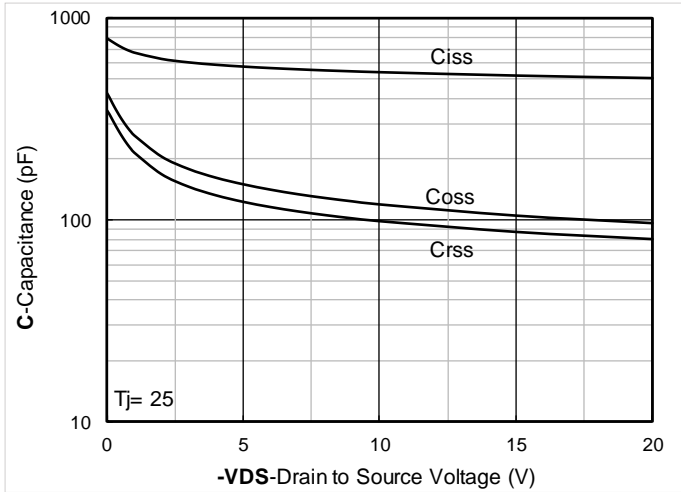


Figure 3. Capacitance Characteristics

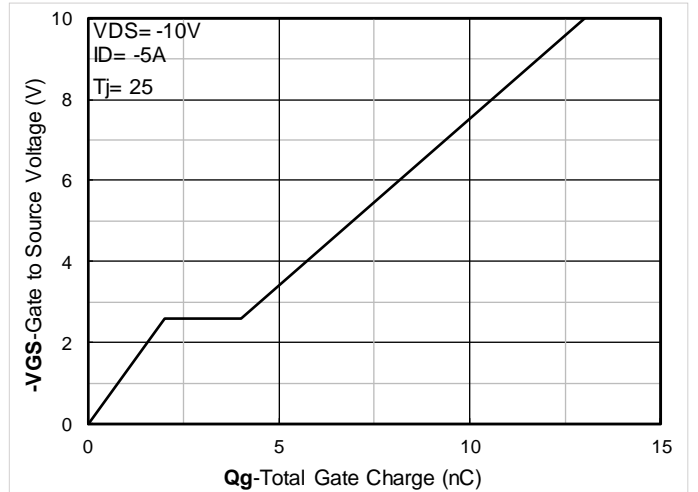


Figure 4. Gate Charge

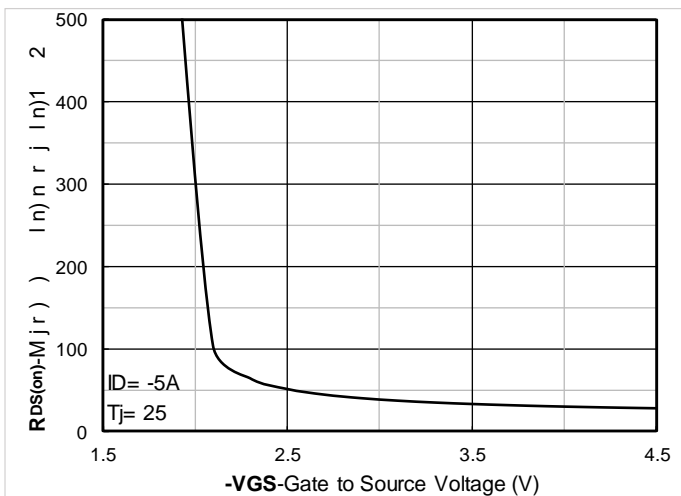


Figure 5. On-Resistance vs Gate to Source Voltage

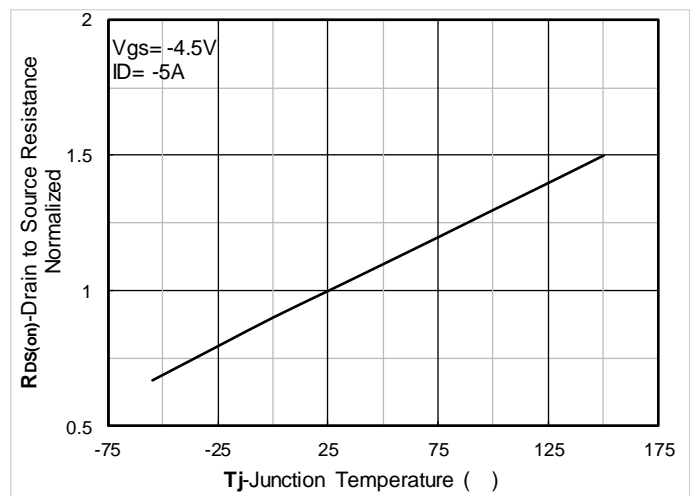


Figure 6. Normalized On-Resistance



YJL3415KC

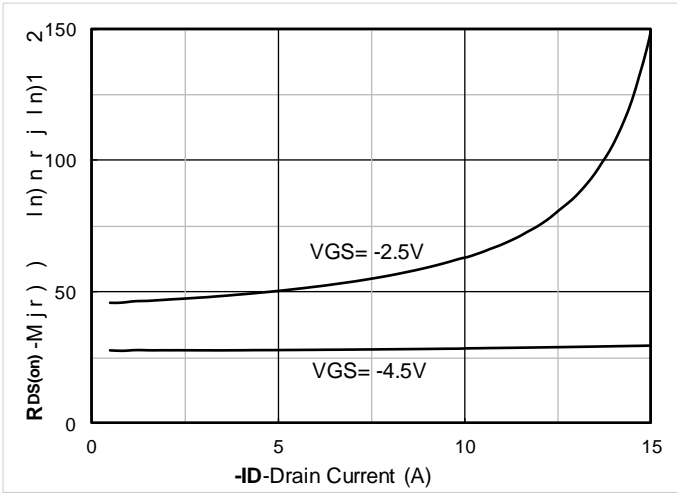


Figure 7. RDS(on) VS Drain Current

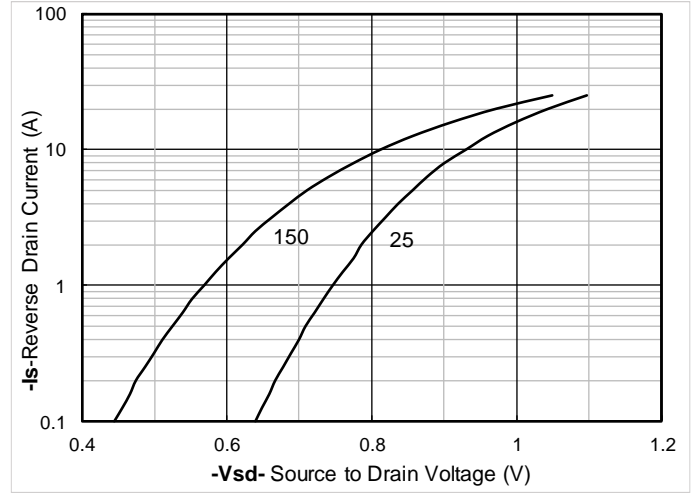


Figure 8. Forward characteristics of reverse diode

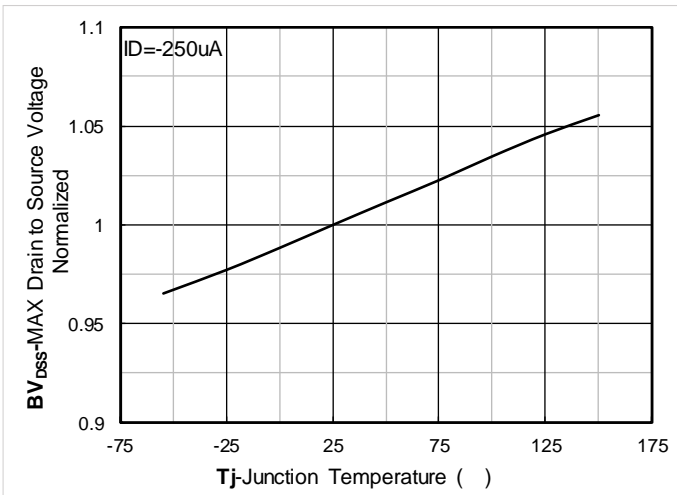


Figure 9. Normalized breakdown voltage

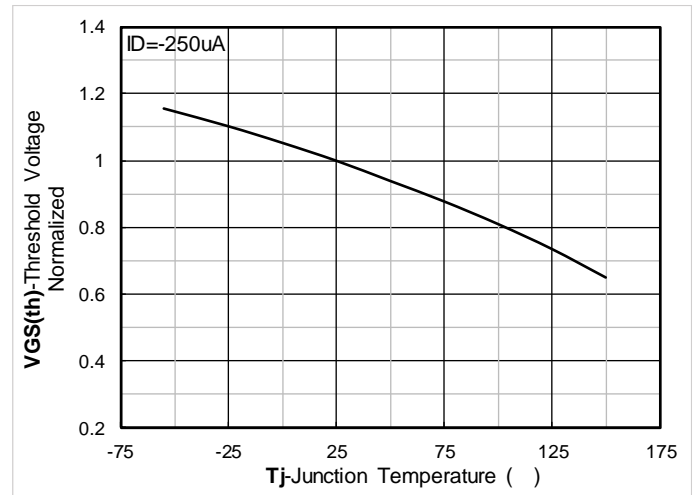


Figure 10. Normalized Threshold voltage

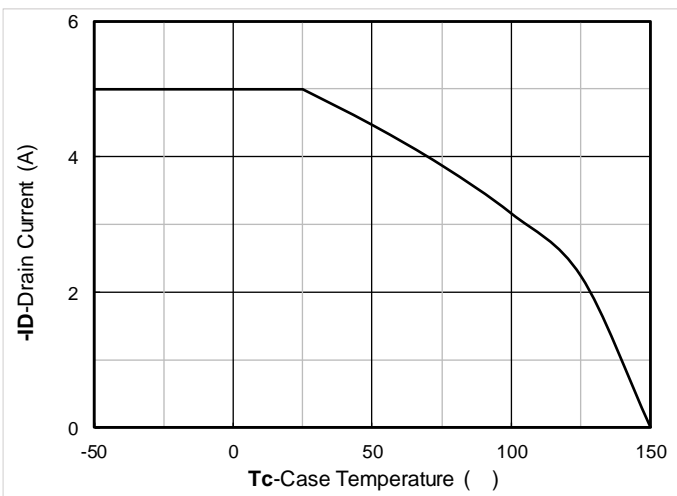


Figure 11. Current dissipation

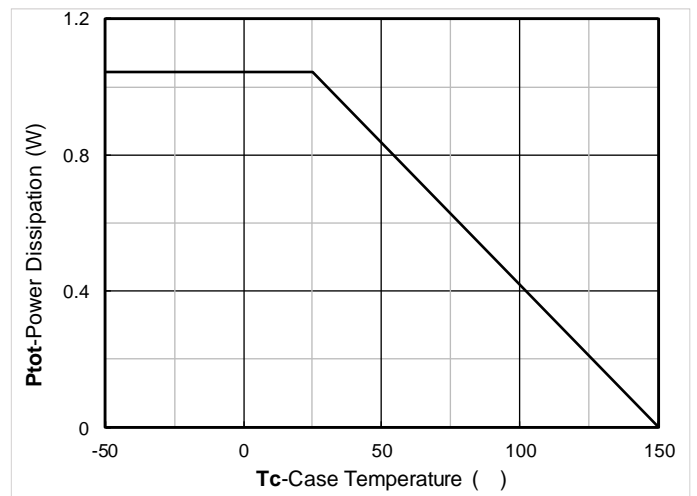


Figure 12. Power dissipation

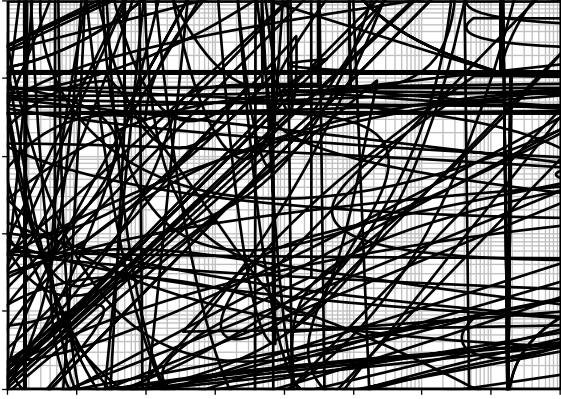


Figure 13. Maximum Transient Thermal Impedance

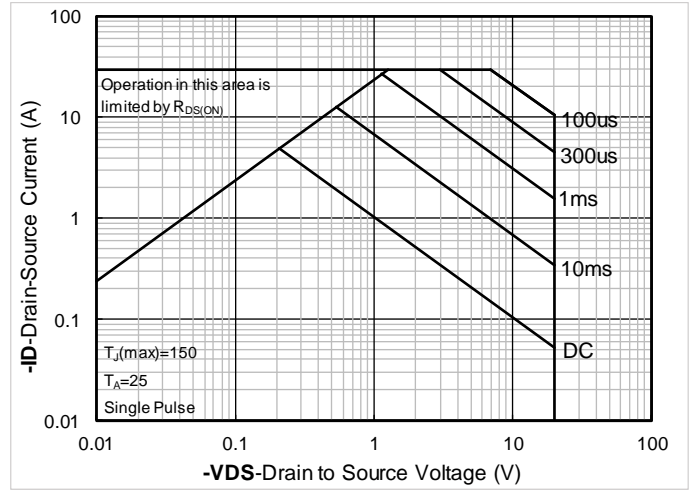
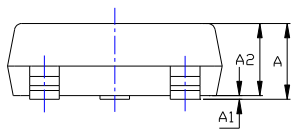
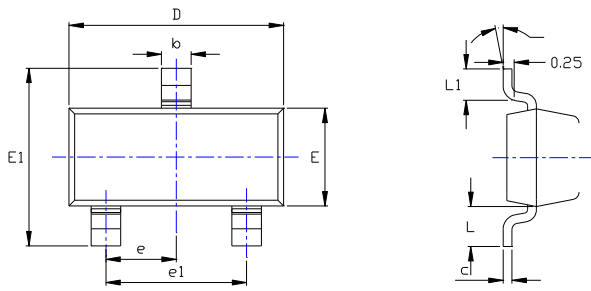


Figure 14. Safe Operation Area



YJL3415KC

SOT-23 Package information



UNIT mm



YJL3415KC

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