



P-Channel Enhancement Mode Field Effect Transistor

Product Summary

- V_{DS} -30 V
- I_D -4.1 A
- $R_{DS(ON)}$ (at $V_{GS}=-10V$) 43 m Ω
- $R_{DS(ON)}$ (at $V_{GS}=-4.5V$) 65 m Ω

General Description

- Trench Power LV MOSFET technology
- High density cell design for Low $R_{DS(ON)}$
- High Speed switching
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

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	$T_A=25$	I_D	-4.1	A
	$T_A=100$		-2.6	
Pulsed Drain Current ^A		I_{DM}	-30	A
Total Power Dissipation ^B	$T_A=25$	P_D	1.25	W
	$T_A=100$		0.5	

Junction and Storage Temperature: -40°C to 175°C

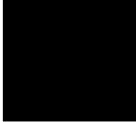


YJL3407C

■ 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 _D =-250μA	-30	-	-	V

Zero Gate Voltage Drain Current





Typical Electrical and Thermal Characteristics Diagrams

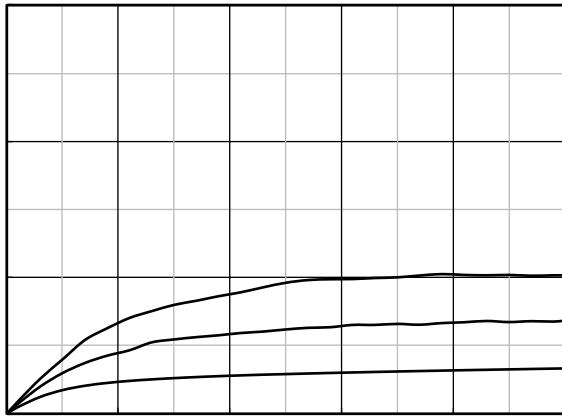


Figure 1. Output Characteristics

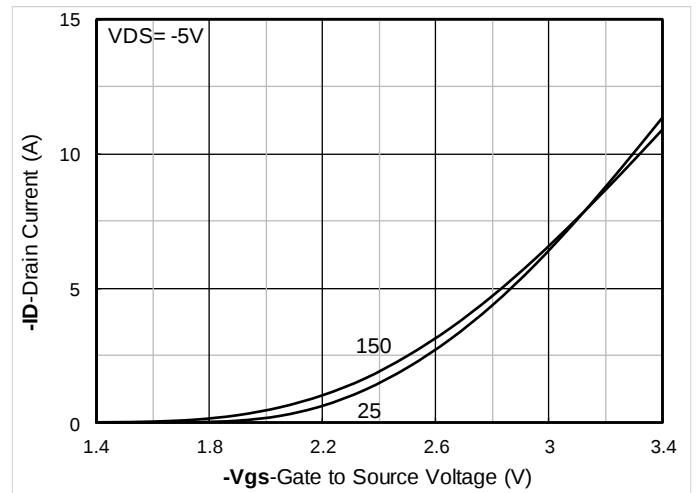


Figure 2. Transfer Characteristics

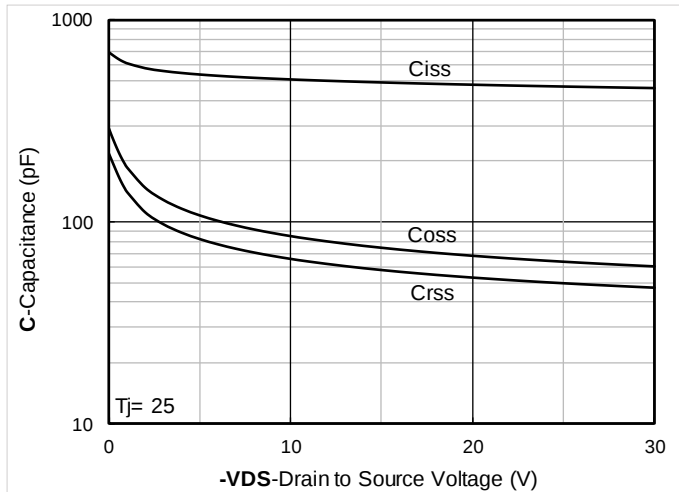


Figure 3. Capacitance Characteristics

(i)5(g)-9(ur)]TJETQq0.000008882 0 596.04 842.

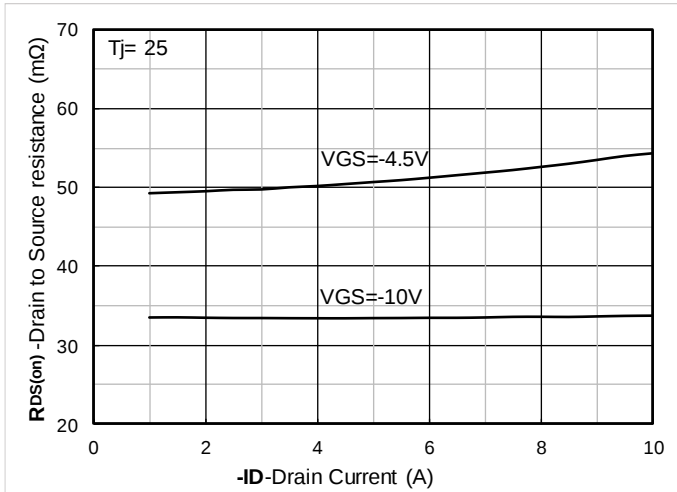


Figure 7. RDS(on) VS Drain Current



Figure 8. Forward characteristics of reverse diode

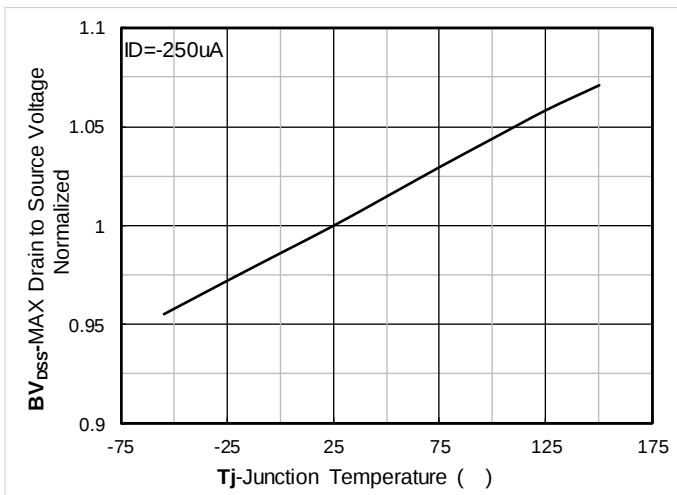


Figure 9. Normalized breakdown voltage

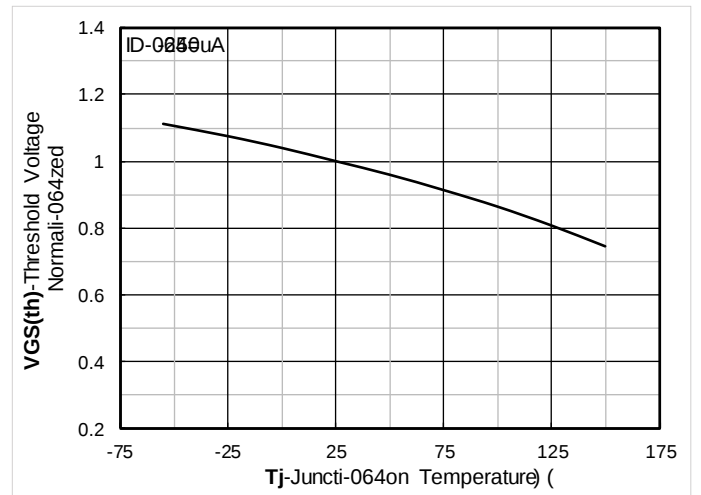


Figure 10. Normalized Threshold voltage

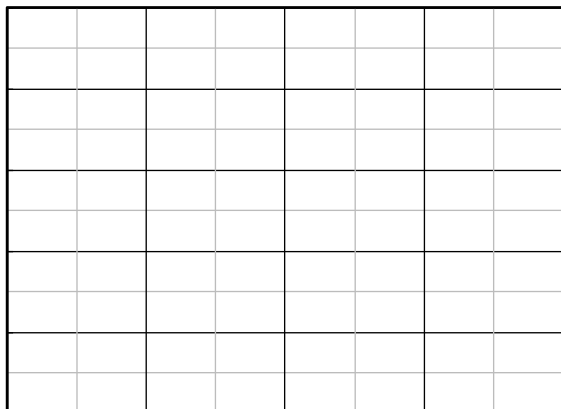


Figure 11. Current dissipation

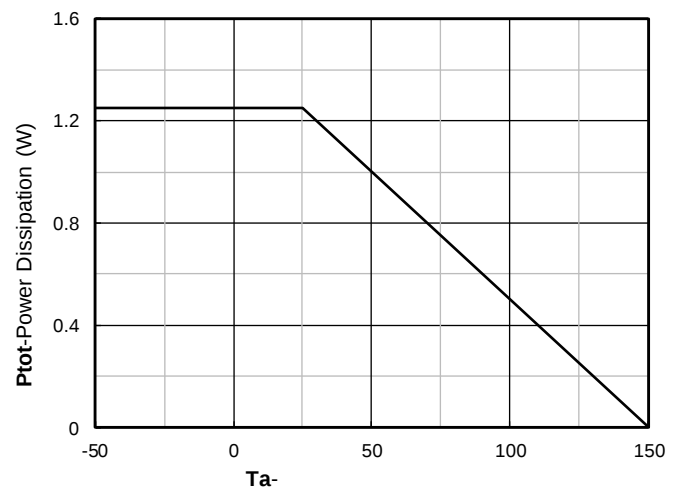
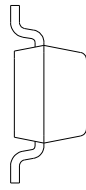
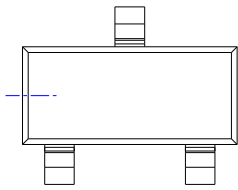


Figure 12.



■ SOT-23 Package information



UNIT mm

