P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-20 V
I_D	-0.5 A
$R_{DS(ON)}$(at V_{GS}=-4.5V)	＜850 m
$R_{DS(ON)}$(at V_{GS}=-2.5V)	＜1200 m
$R_{DS(ON)}$(at V_{GS}=-1.8V)	＜2000 m

General Description

Trench Power LV MOSFET technology
Extremely low switching loss
Excellent stability and uniformity

Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

PWM application
pment

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

		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	-20	V
Gate-source Voltage		V_{GS}	±10	V
Drain Current	T_A=25	I_D	-0.5	A
	T_A=100		-0.3	
Pulsed Drain Current [A]		I_{DM}	-2.5	A
Total Power Dissipation [B]	T_A=25	P_D	0.28	W
	T_A=100		0.1	
Junction and Storage Temperature Range		T_J ,T_{STG}	-55～+150	

55826 19.92 reW*n2826 19.92 re2 re4.55 311.93 Tm0 g Tm0 g0 G[ )]TJETQQ EMC q286.51 325.13 103.08 40.2 reW*T72 27 30 325.13 103.07998 re0 g Tm0 g0 G[ )]TJ79

Electrical Characteristics (T_J=25℃ unless otherwise noted)

Typical Electrical and Thermal Characteristics Diagrams

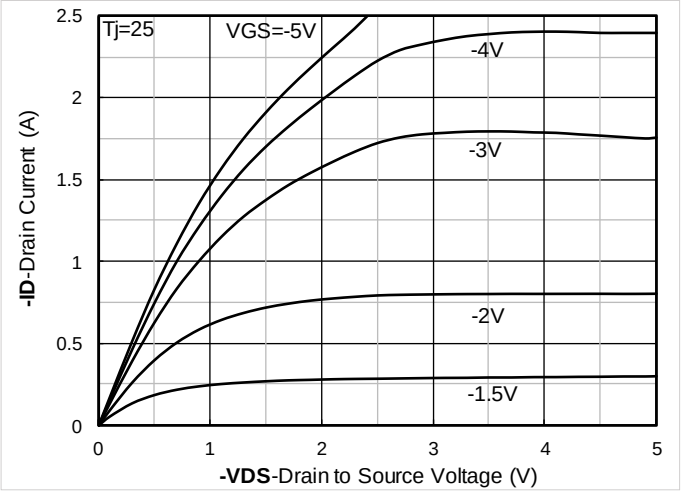


Figure 1. Output Characteristics

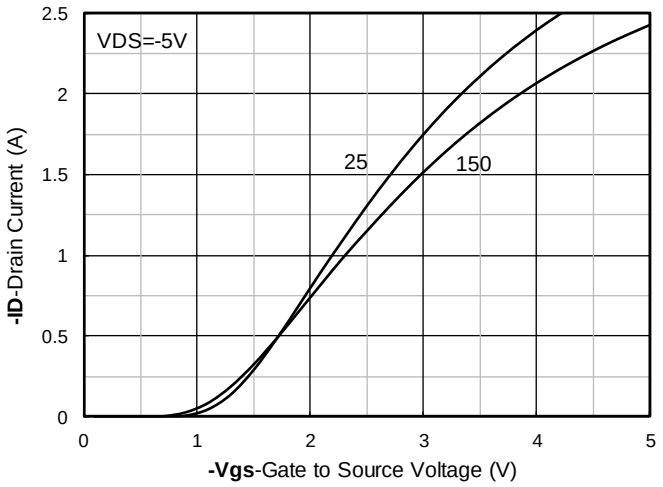


Figure 2. Transfer Characteristics

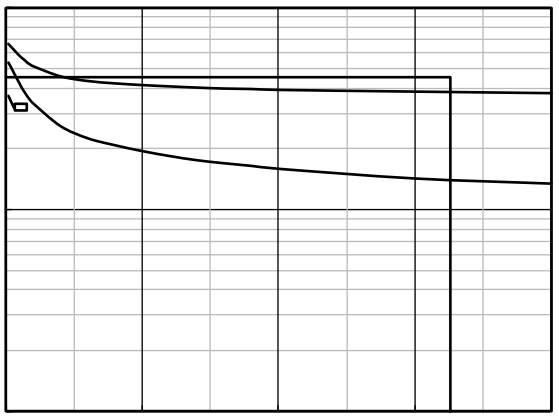


Figure 3. Capacitance Characteristics

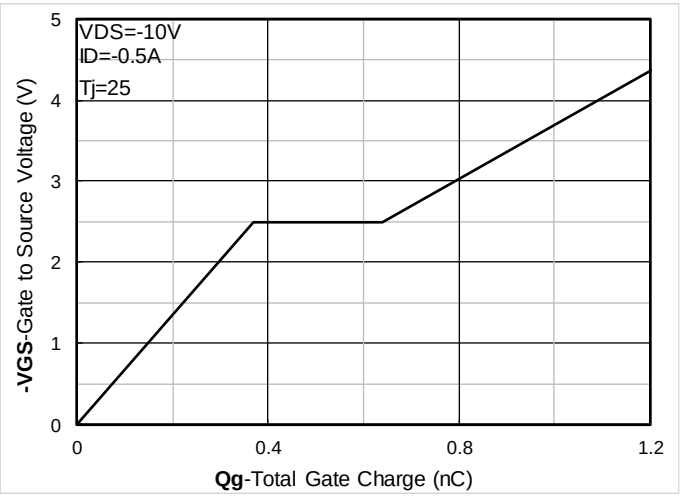


Figure 4. Gate Charge

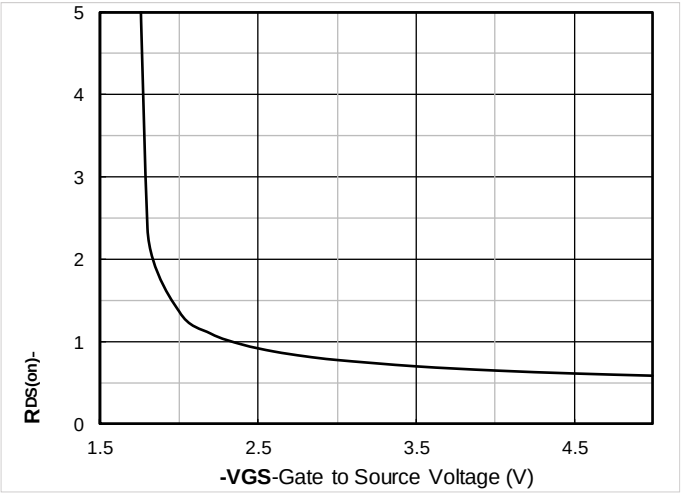


Figure 5. On-Resistance vs Gate to Source Voltage

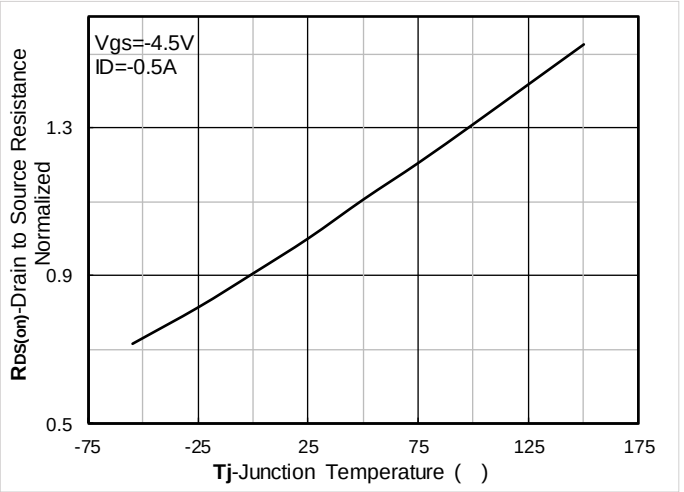


Figure 6. Normalized On-Resistance

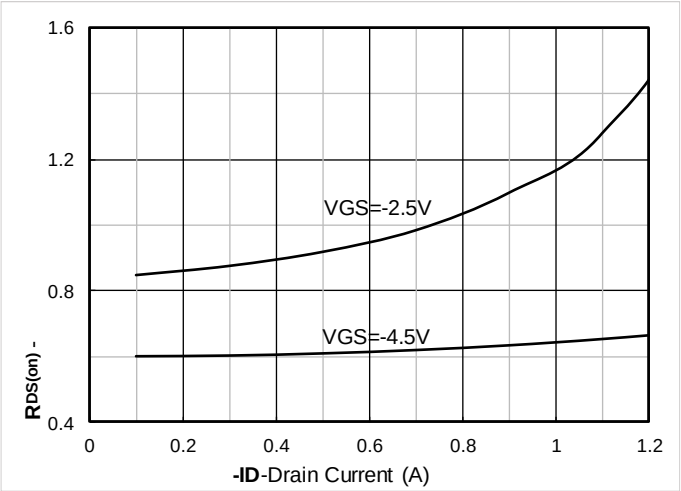


Figure 7. $R_{DS(on)}$ VS Drain Current

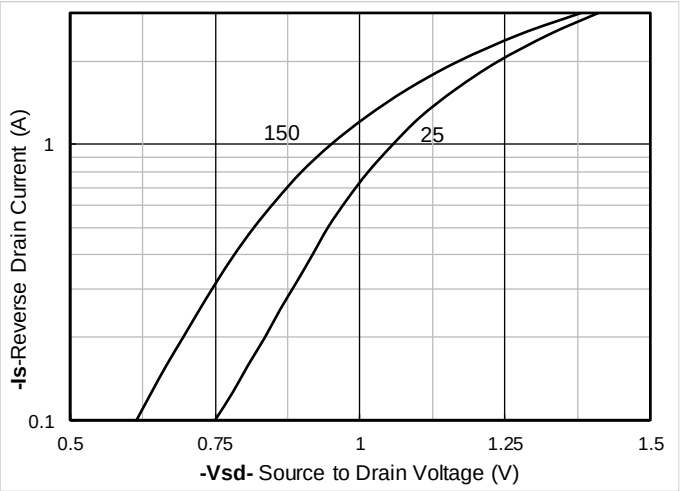


Figure 8. Forward characteristics of reverse diode

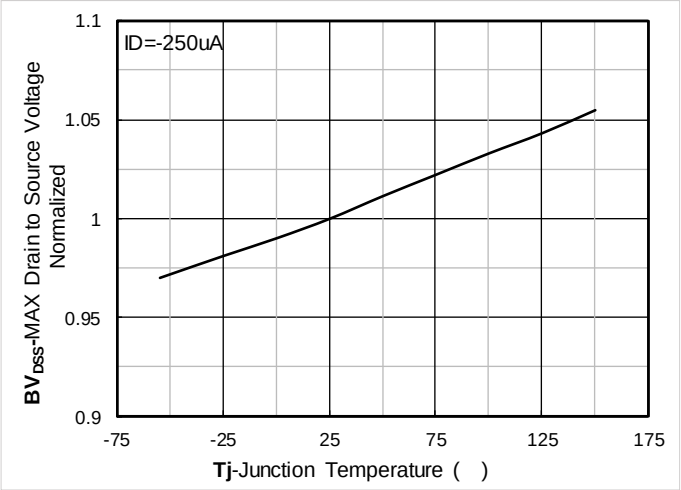


Figure 9. Normalized breakdown voltage

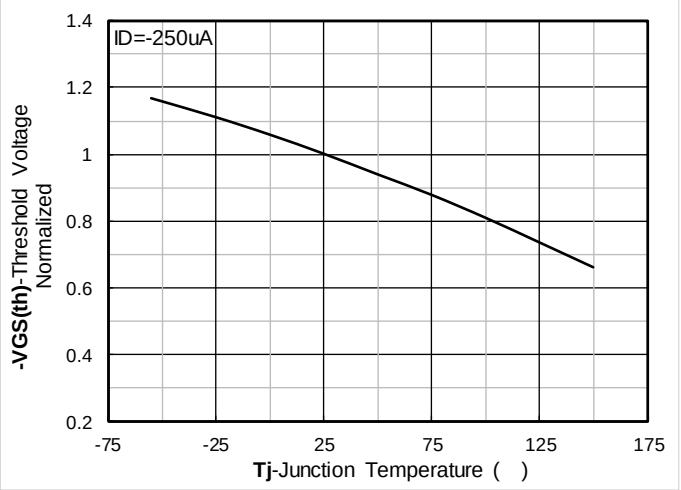


Figure 10. Normalized Threshold voltage

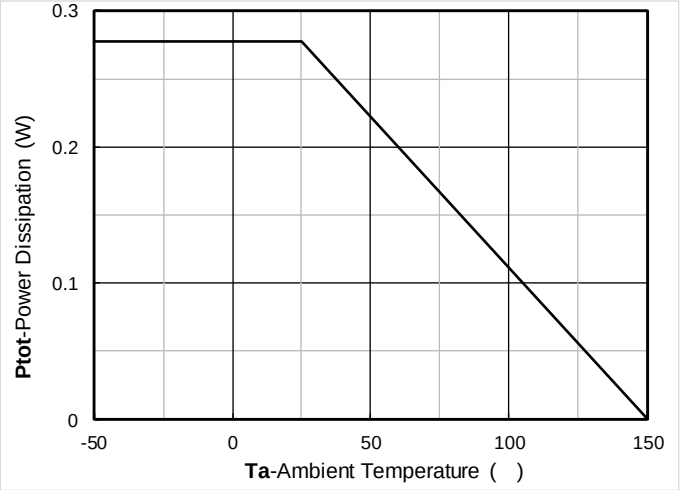


Figure 11. Current dissipation

Figure 12. Power dissipation

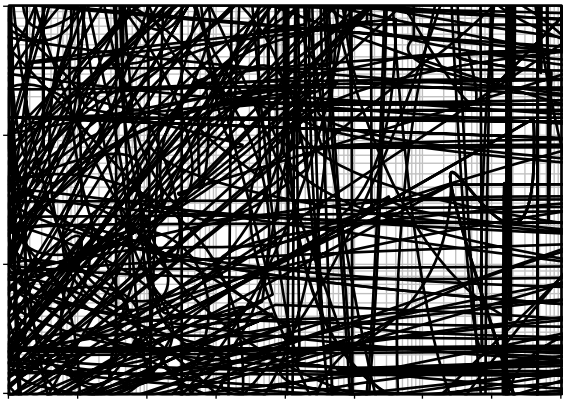


Figure 13. Maximum Transient Thermal Impedance

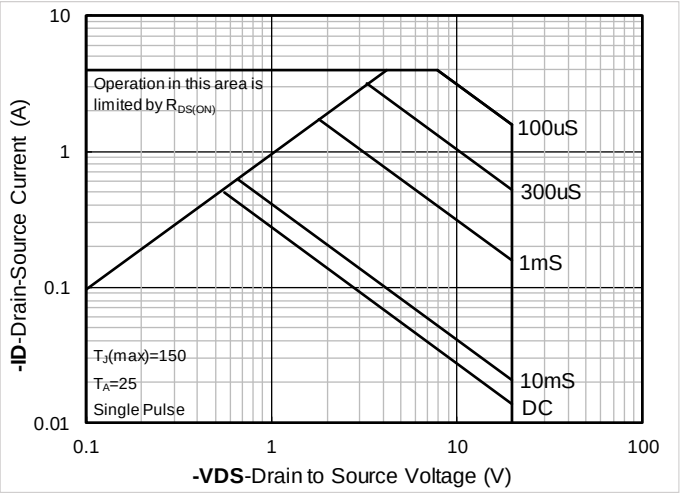
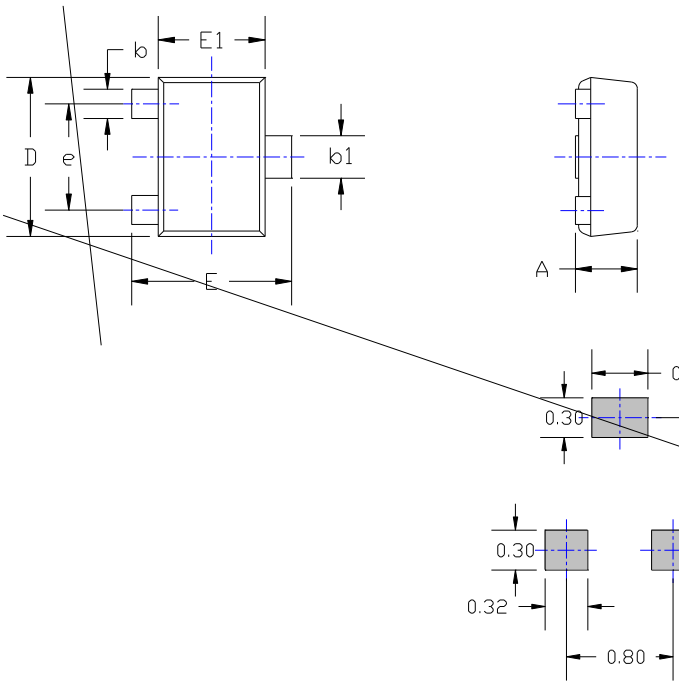


Figure 14. Safe Operation Area

SOT-723 Package information



DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.017	0.022	0.430	0.550
A1	0.000	0.002	0.000	0.050
b	0.007	0.011	0.170	0.270
b1	0.011	0.015	0.270	
c	0.003			
D	0.045	0.049	1.150	1.250
E	0.045	0.049	1.150	1.250
E1	0.030	0.033	0.750	0.850
e	0.031TYP.		0.800TYP.	
θ	7°REF.		7°REF.	

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.

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