P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-40 V
I_D	-20 A
$R_{DS(ON)}$(at V_{GS}=-10V)	30 m
$R_{DS(ON)}$(at V_{GS}=-4.5V)	45 m

100% EAS Tested
100% V_{DS} Tested

General Description

Trench Power LV MOSFET technology
Low $R_{DS(on)}$ & FOM
Extremely low switching loss
Excellent stability and uniformity
High density cell design for low $R_{DS(ON)}$
Moisture Sensitivity Level 1
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

Absolute Maximum Ratings (T_A=25 unless otherwise noted)

Parameter	Symbol	Limit	Unit

Drain-

YJG20P04A

■Typical Electrical and Thermal Characteristics Diagrams

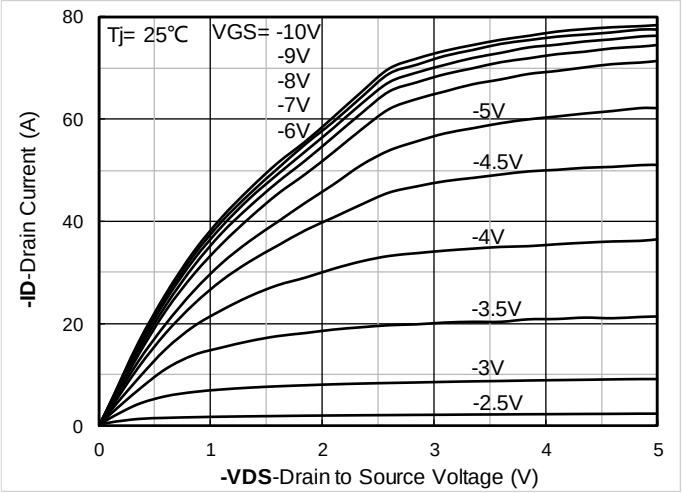


Figure 1. Output Characteristics

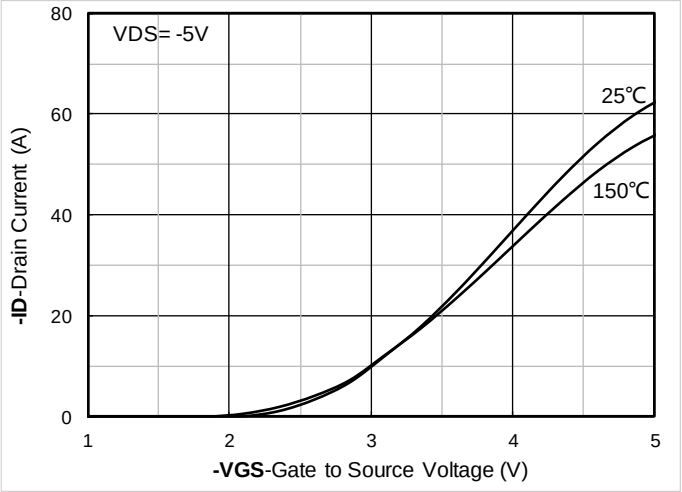


Figure 2. Transfer Characteristics

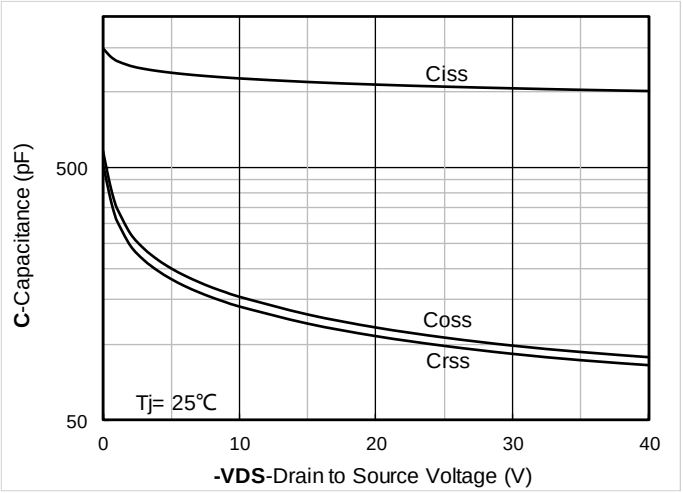


Figure 3. Capacitance Characteristics

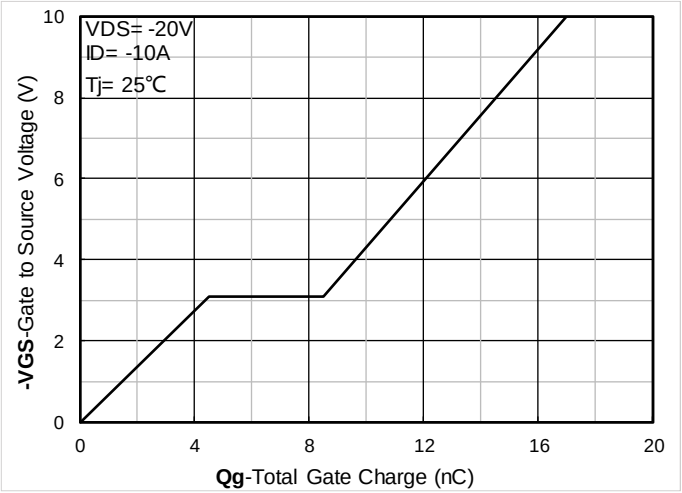


Figure 4. Gate Charge

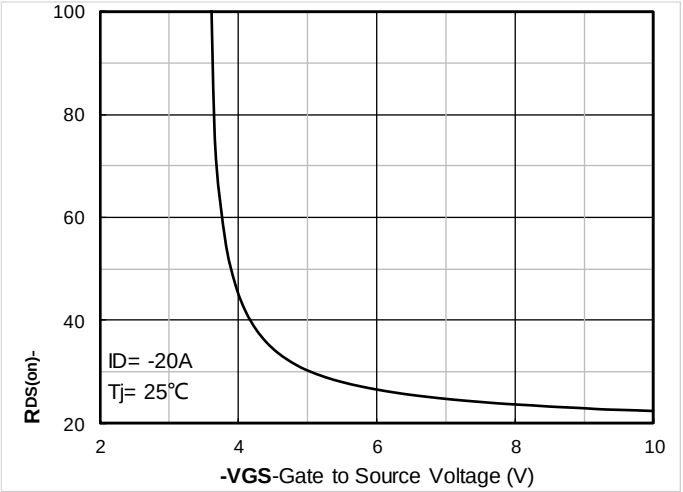


Figure 5. On-Resistance vs Gate to Source Voltage

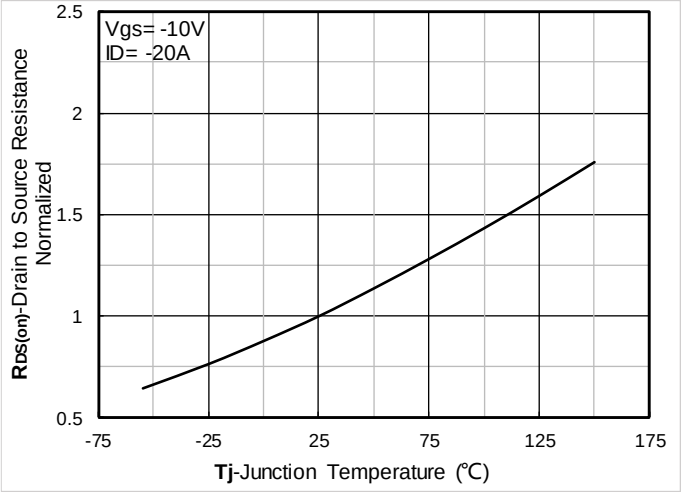


Figure 6. Normalized On-Resistance

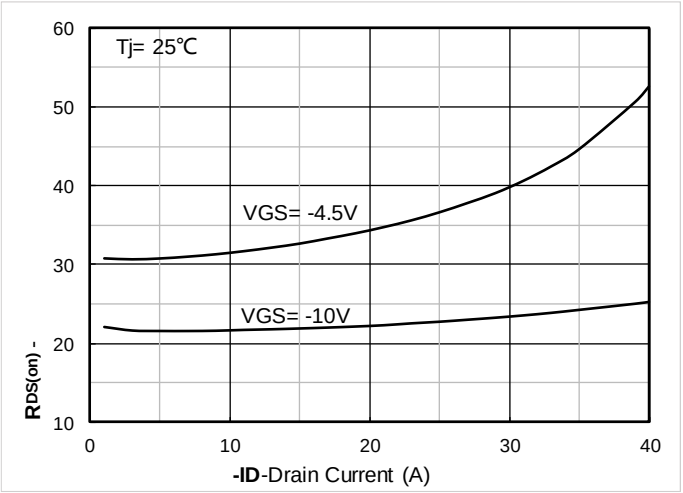


Figure 7. $R_{DS(on)}$ VS Drain Current

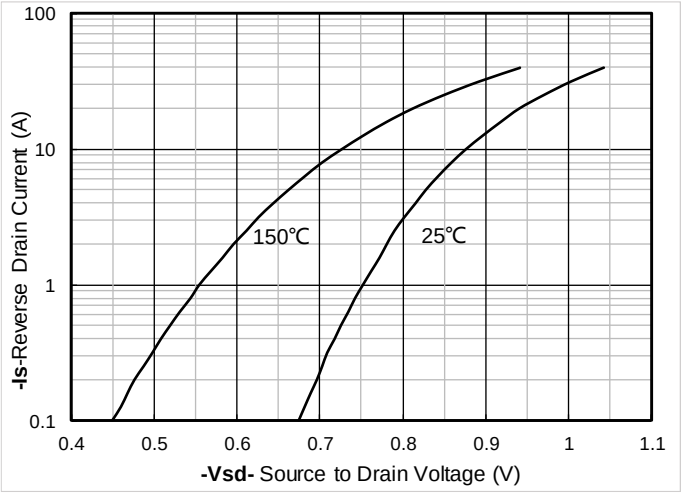


Figure 8. Forward characteristics of reverse diode

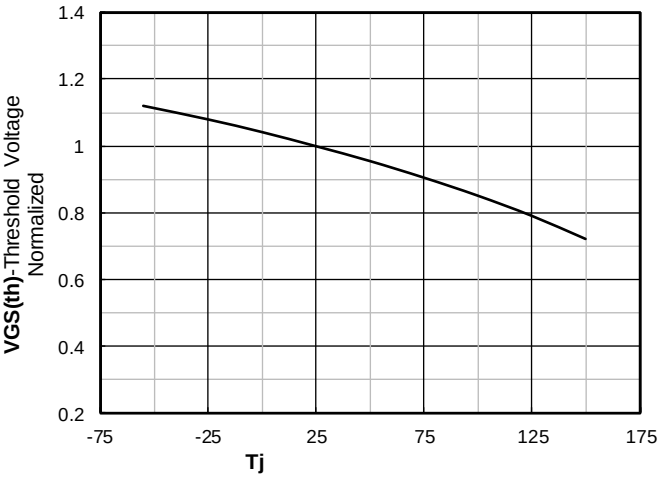


Figure 9. Normalized breakdown voltage

Figure 10. Normalized Threshold voltage

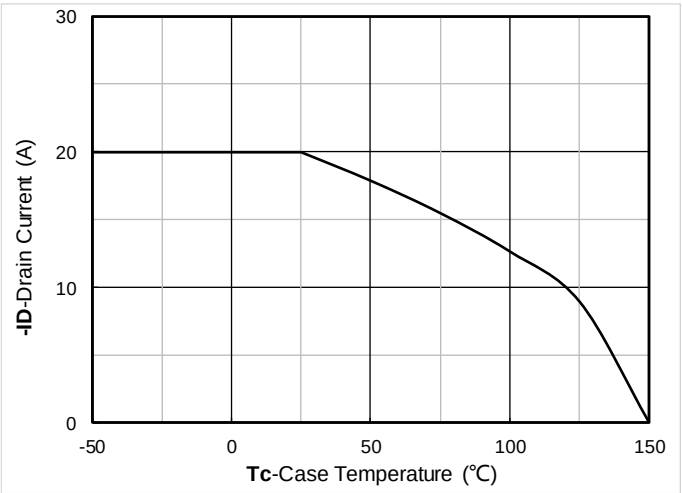


Figure 11. Current dissipation

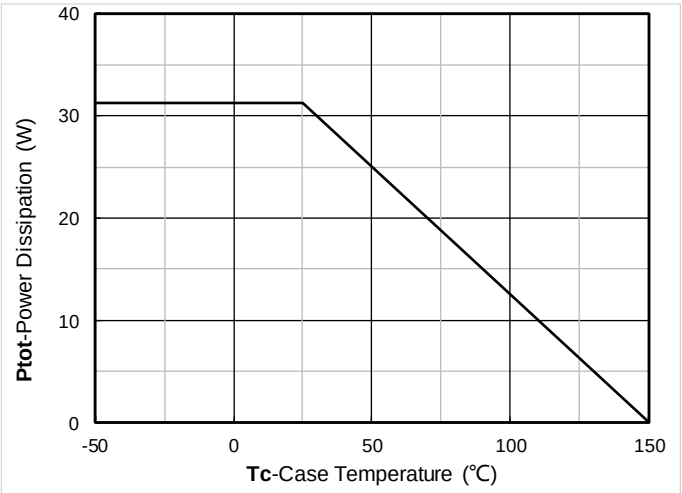


Figure 12. Power dissipation

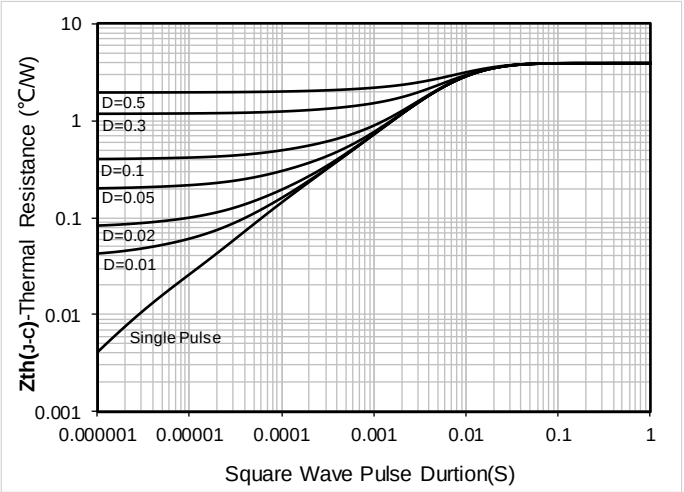


Figure 13. Maximum Transient Thermal Impedance

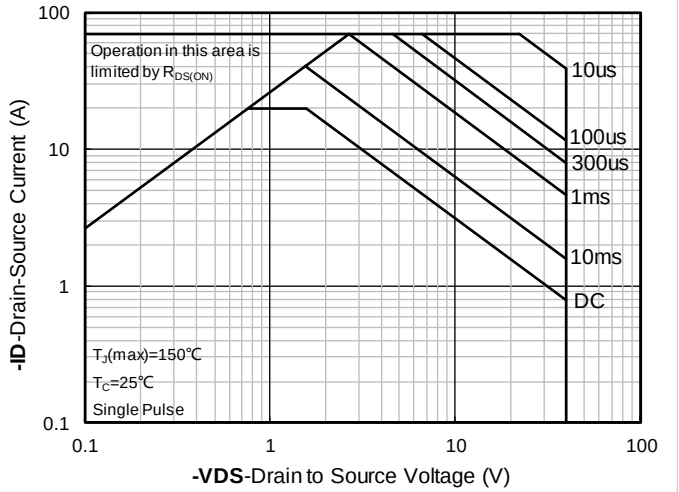
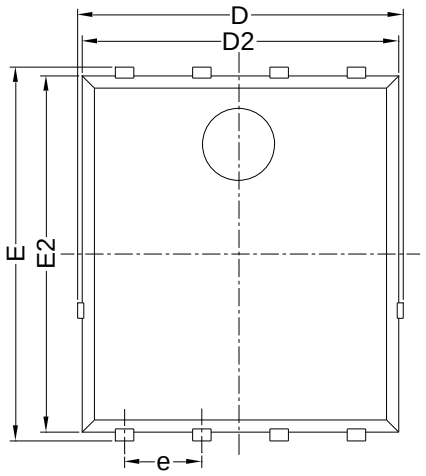
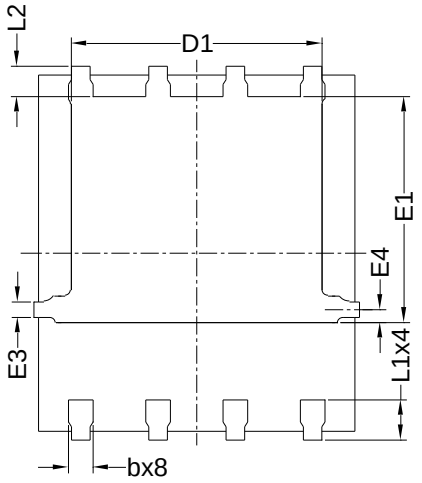


Figure 14. Safe Operation Area

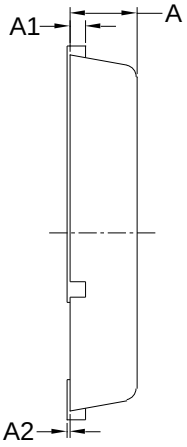
PDFN5060-8L-B-1.1MM Package information



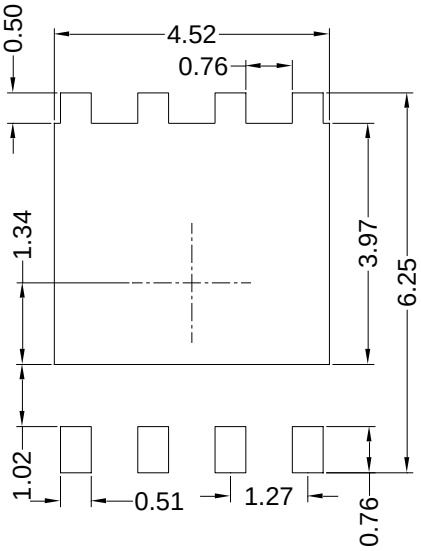
Top View



Bottom View



Side View



Suggested Solder Pad Layout
Top View

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
D	5.15	5.35	5.55
E	5.95	6.15	6.35
A	1.00	1.10	1.20
A1		0.254 BSC	
A2			0.10
D1	3.92	4.12	4.32
E1	3.52	3.72	3.92
D2	5.00	5.20	5.40
E2	5.66	5.86	6.06
E3		0.254 REF	
E4		0.21 REF	
L1	0.56	0.66	0.76
L2		0.50 BSC	
b	0.31	0.41	0.51
e		1.27 BSC	

Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.10mm.
3.The pad layout is for reference purposes only.

Disclaimer

The en-u000000888 0 595.92 841.92 reW*nBT/F5 9.12 Tf1 0 0 1 32.664 738.7 Tm0 g0 G[T000CuT46 T Gf0 0.6o gr3.66 T- re Gt)1500CuT4

37dn3.66Gf0 TJETQ30.00EDQ0.00Ba0.00595.92a841.92re W*nBT/F5 9.12 Tf1 0 0 1 32.664 738.7 Tm0 g0 G[T000CuT46 T Gf0 0.6o gr3.66 T- re Gt)1500CuT46 TG63 TJE