



YJG15GP10A

P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-100V
I_D	-15A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	110 mohm
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	120 mohm
100% EAS Tested	
100% V_{DS} Tested	

General Description

Split gate trench MOSFET technology
Excellent package for heat dissipation
High density cell design for low $R_{DS(ON)}$
Moisture Sensitivity Level 1
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

DC-DC Converters
Power management functions

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

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	-100	V
Gate-source Voltage		V_{GS}	20	V
Drain Current	$T_A=25^{\circ}C$	I_D	-3	A
	$T_A=100^{\circ}C$		-2	
	$T_C=25$		-15	
	$T_C=100$		-9.6	
Pulsed Drain Current ^A		I_{DM}	-30	A
Avalanche energy ^B		EAS	64	mJ
Total Power Dissipation ^C	$T_A=25^{\circ}C$	P_D	2.5	W
	$T_A=100^{\circ}C$		1	
	$T_C=25$		60	
	$T_C=100$		24	

Junction and Storage Temperature Range

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Typical Performance Characteristics

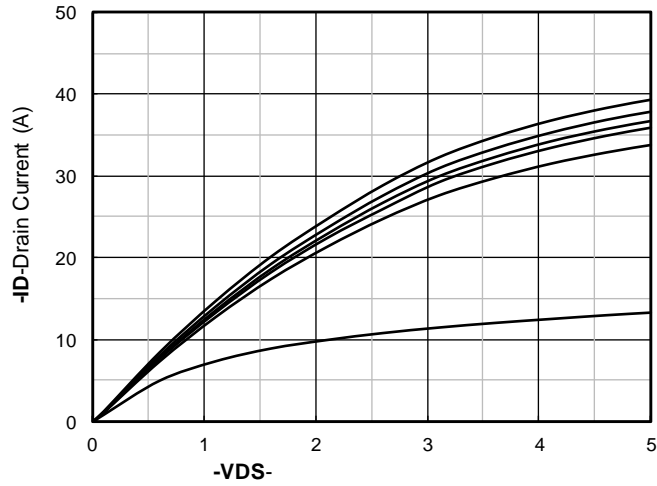


Figure1. Output Characteristics

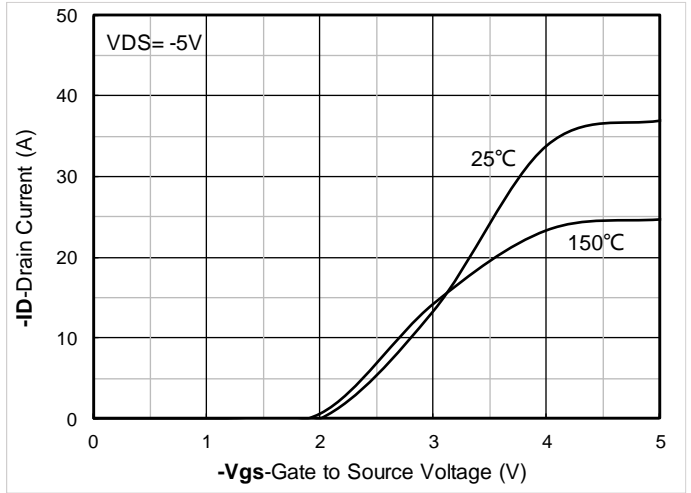


Figure2. Transfer Characteristics

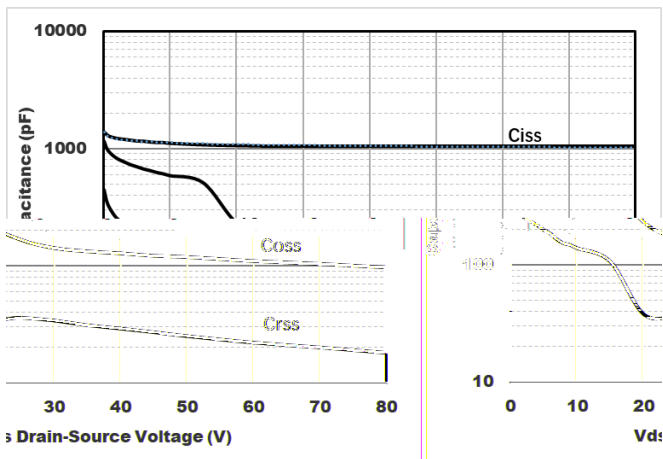


Figure3. Capacitance Characteristics

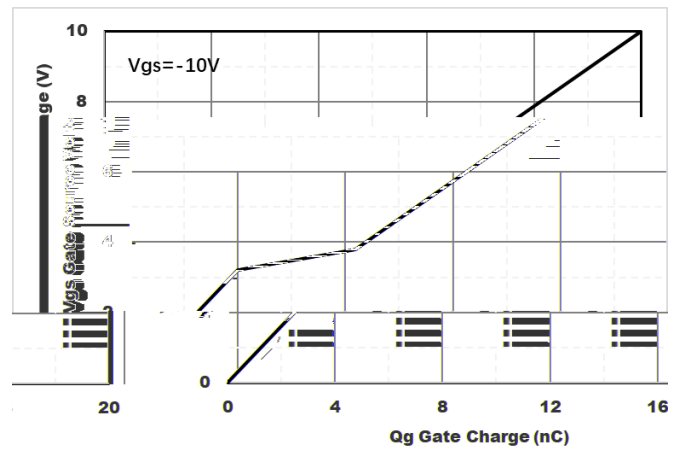


Figure4. Gate Charge

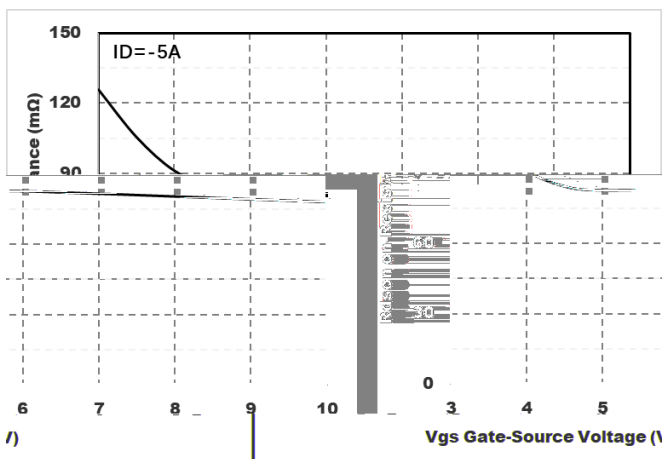


Figure5. : On-Resistance vs. Gate to Source Voltage

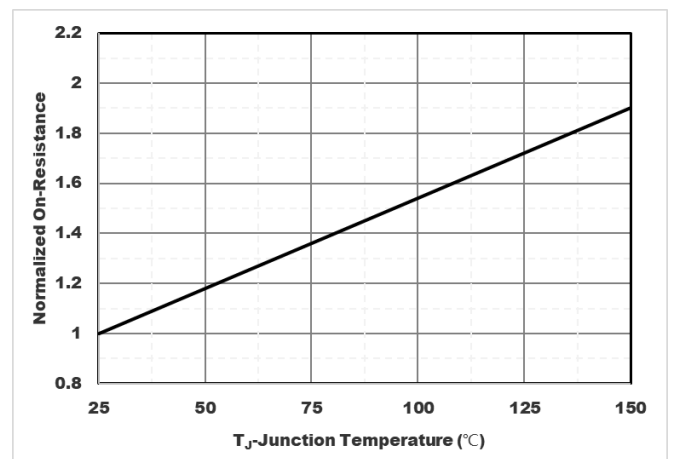


Figure6. Normalized On-Resistance



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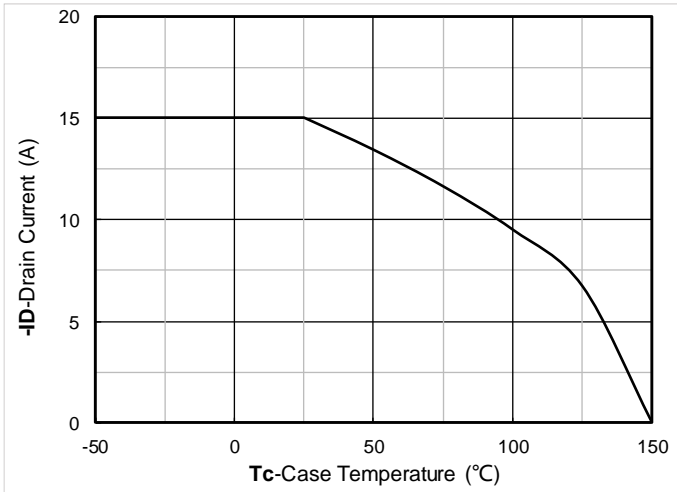


Figure7. Drain current

Figure8.Safe Operation Area

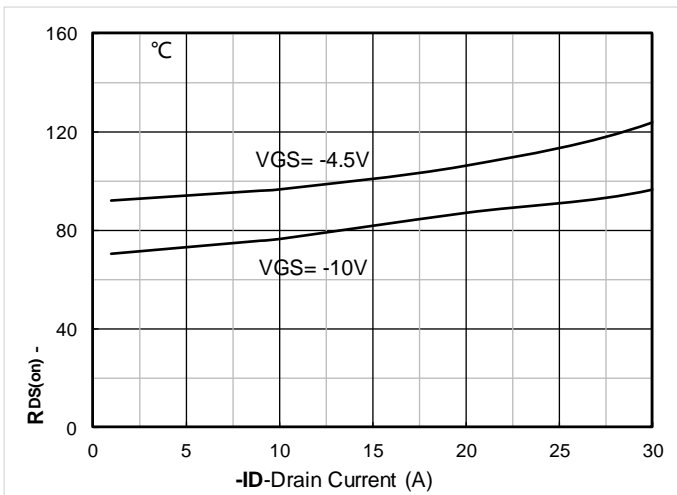
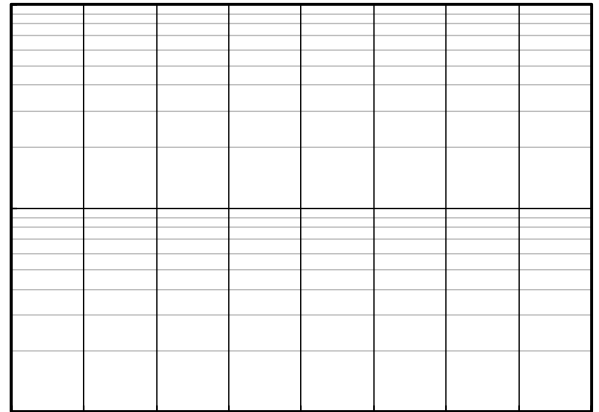


Figure 9. RDS(on) VS Drain Current



Figure



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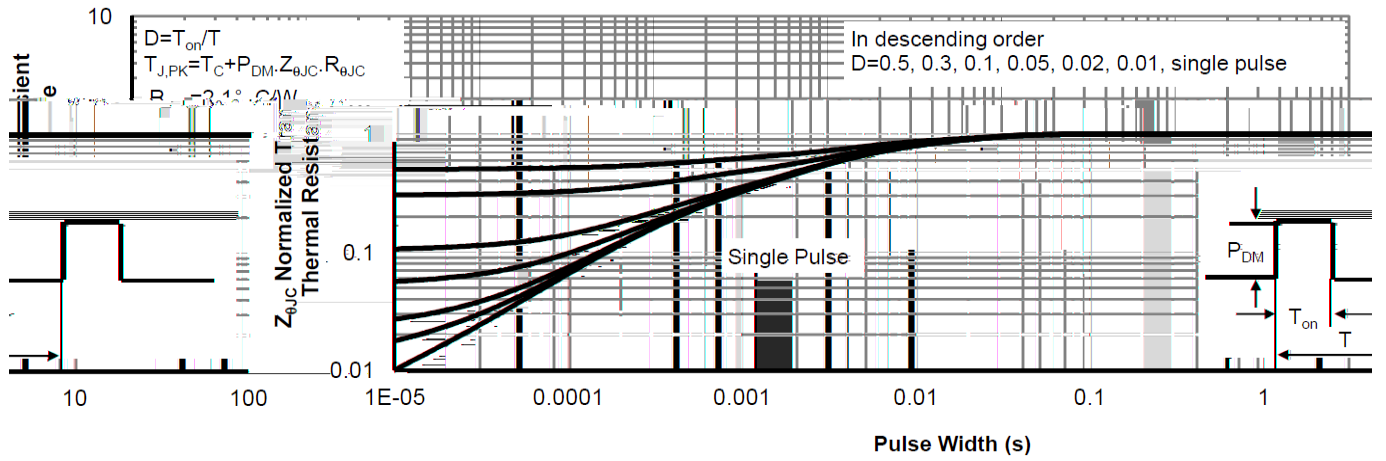
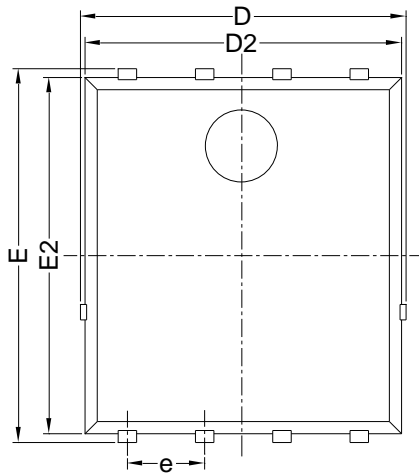


Figure13.Normalized Maximum Transient thermal impedance

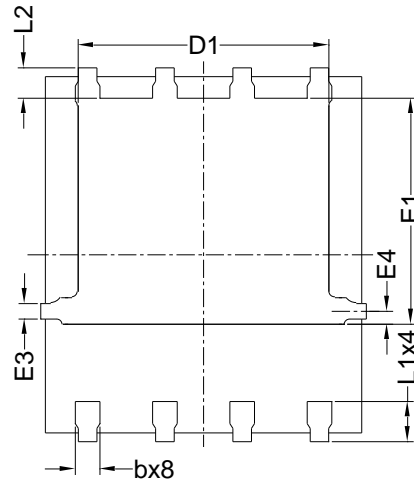


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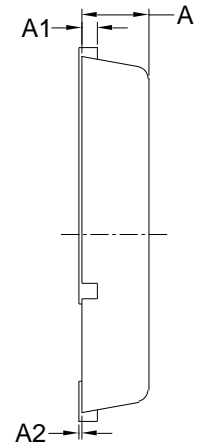
PDFN5060-8L-B-1.1MM Package Information



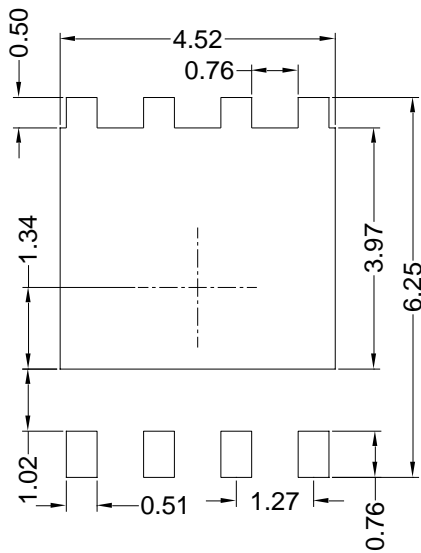
Top View



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: ± 0.10 mm.
3. The pad layout is for reference purposes only.



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