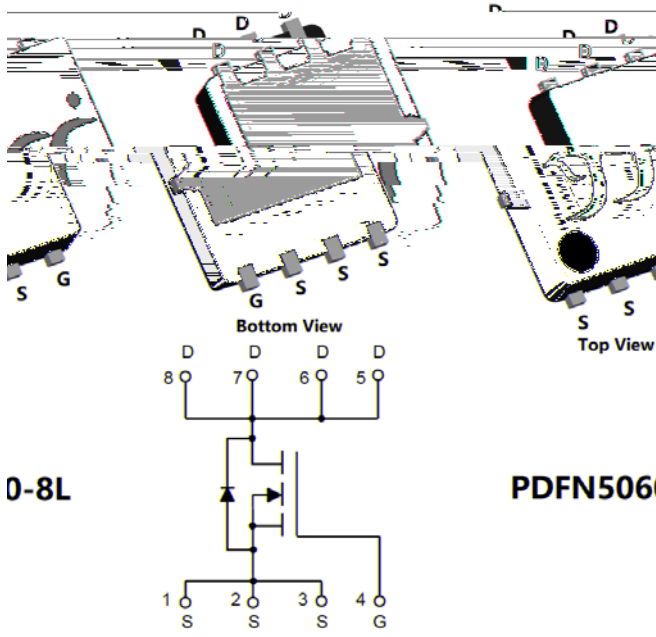




N-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	100V
I_D	120A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	4.2mohm
100% EAS Tested	
100% VDS 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 3
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Power switching application
- Uninterruptible power supply
- PD charger
- DC-DC convertor

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	$T_C=25$	I_D	120	A
	$T_C=100$		76	
Pulsed Drain Current ^A		I_{DM}	480	A
Avalanche energy ^B		EAS	552	mJ
Total Power Dissipation ^C	$T_C=25$	P_D	108	W
	$T_C=100$		43	
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	Steady-State	R_{JA}	45	55	/W
	Thermal Resistance Junction-to-Case	R_{JC}	0.95	1.16	

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJG120G10BR	F1	G120G10BR	5000	10000	100000	13" reel



YJG120G10BR

Typical Electrical and Thermal Characteristics Diagrams

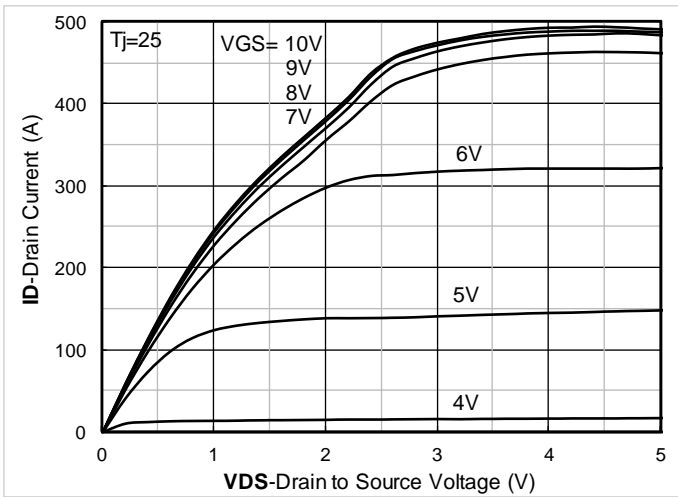


Figure1. Output Characteristics

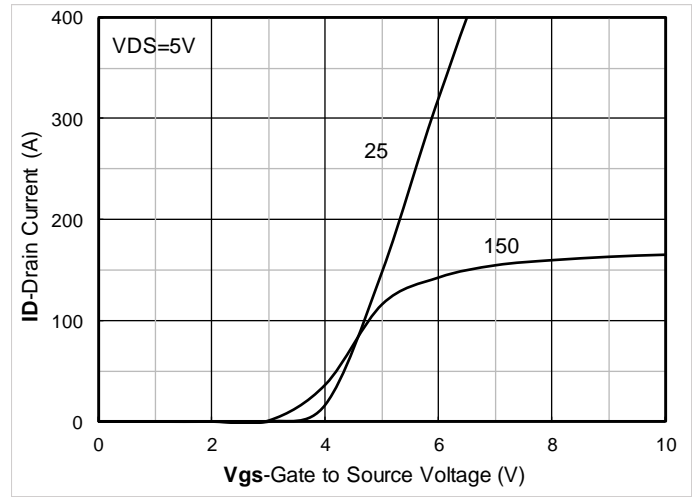


Figure2. Transfer Characteristics

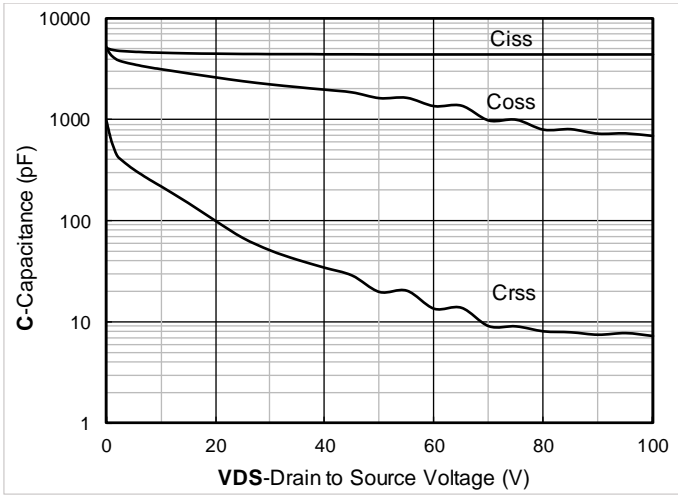


Figure3. Capacitance Characteristics

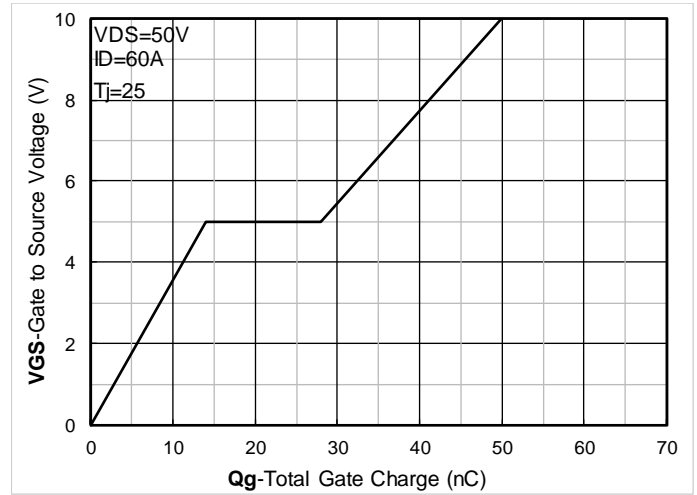


Figure4. Gate Charge

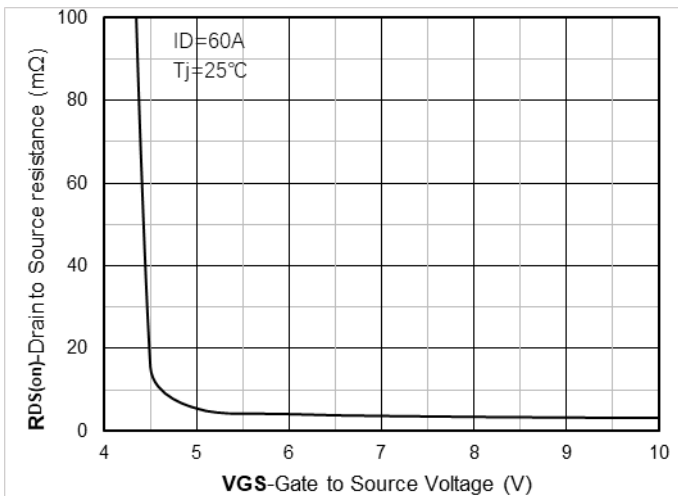


Figure5. On-Resistance vs Gate to Source Voltage

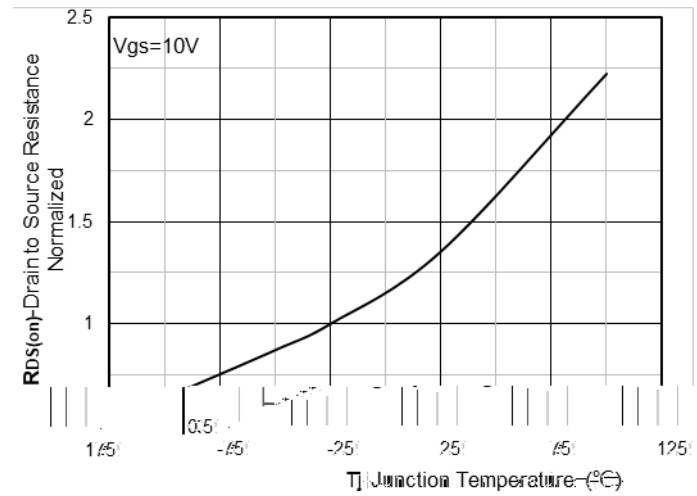


Figure6. Normalized On-Resistance



YJG120G10BR

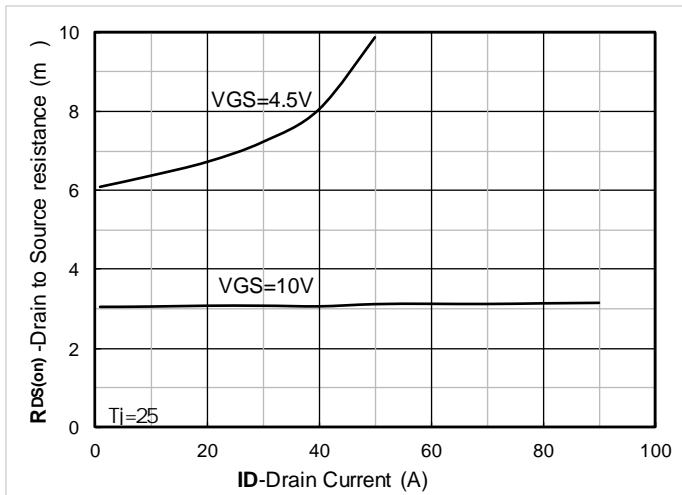


Figure7. RDS(on) VS Drain Current

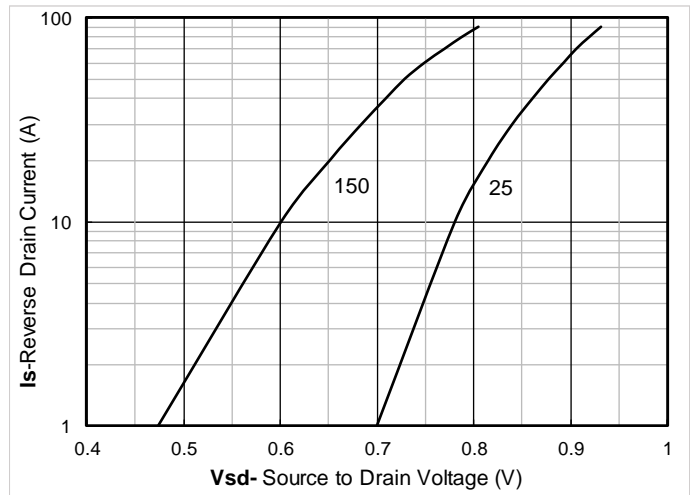


Figure8. Forward characteristics of reverse diode

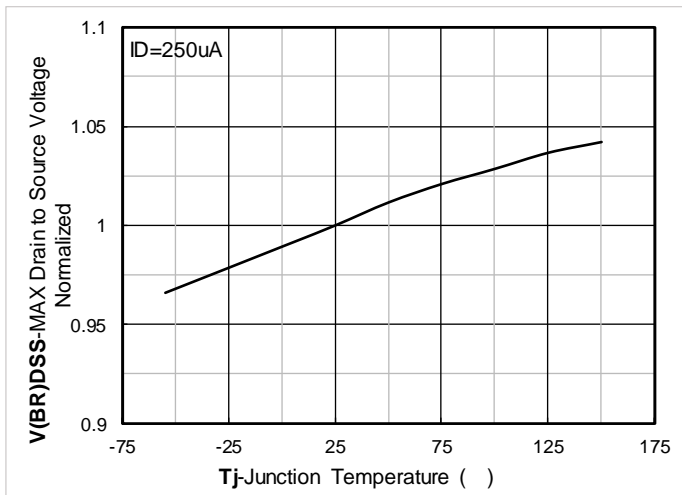


Figure9. Normalized breakdown voltage

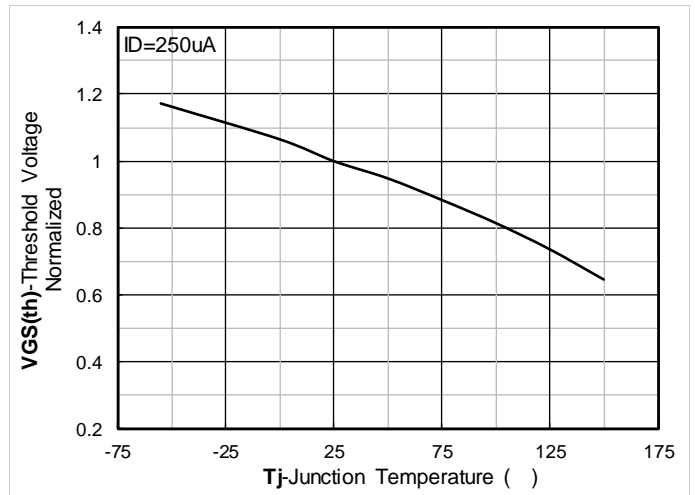


Figure10. Normalized Threshold voltage

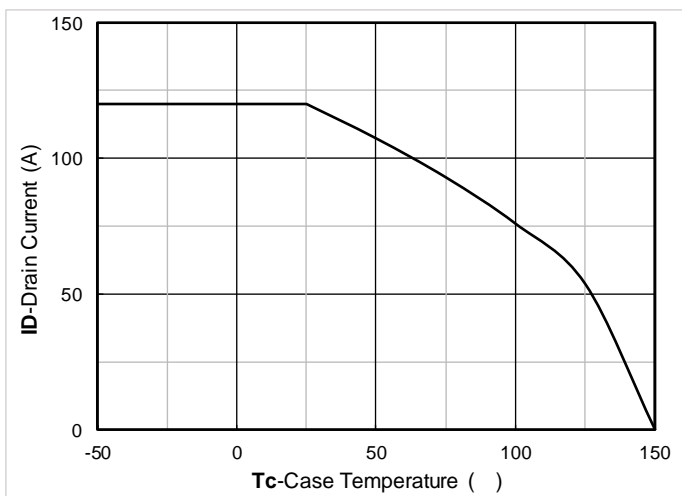


Figure11. Current dissipation

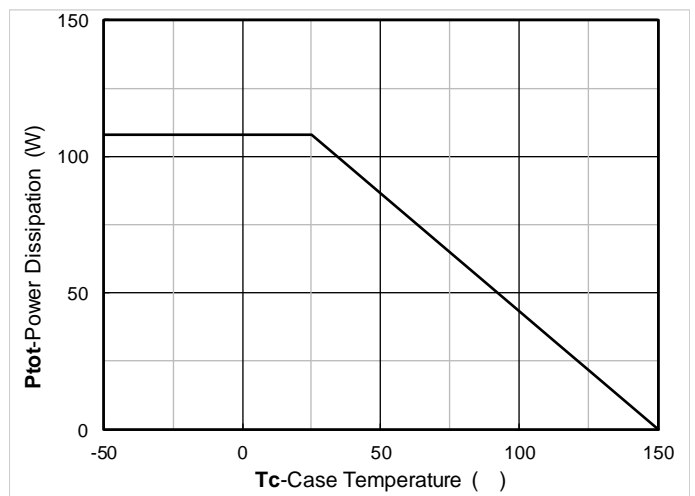
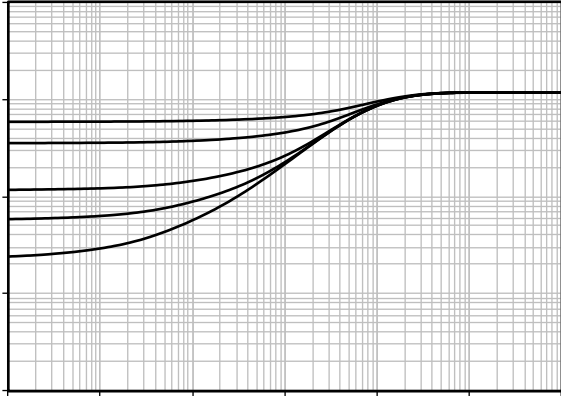


Figure12. Power dissipation





YJG120G10BR

PDFN5060-8L-D-0.95MM Package information

