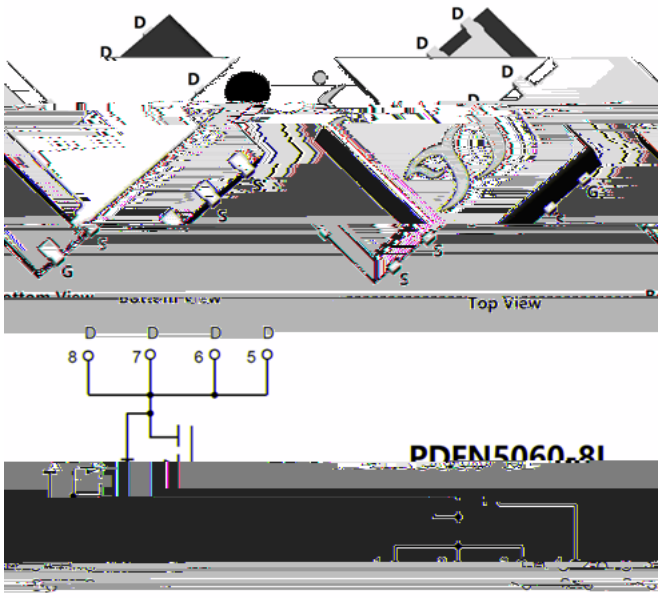
N-Channel Enhancement Mode Field Effect Transistor



Product Summary

- V_{DS} 40V
- I_D 110A
- $R_{DS(ON)}$(at V_{GS}=10V) 3.8mΩ
- 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

Ŏ τ ª

$_J$=25 unless otherwise noted)

Parameter			Symbol	Limit	Unit
Drain-source Voltage			V_{DS}	40	V – ɪ A
		T_A=100		14	
Continuous Drain Current (Note 1,3)	Steady-State	T_C=25		110	
		T_C =100		77	
Pulsed Drain Current	T_C=25 , t_p=100µs		I_{DM}	400	A
Avalanche energy	V_G=10V, R_G=25Ω, L=3mH, IAS=13.5A		EAS	273.3	mJ
Total Power Dissipation (Note 1,2)	Steady-State	T_A=25	P_D	2.7	W
		T_A=100		1.3	
Total Power Dissipation (Note 1,3)	Steady-State	T_C=25		83	
		T_C =100		41	
Junction and Storage Temperature Range			T_J ,T_{STG}	-55 +175	

■Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient (Note 2)	Steady-State	$R_{θJA}$	45	55	/W
Thermal Resistance Junction-to-Case	Steady-State	$R_{θJC}$	1.5	1.8	

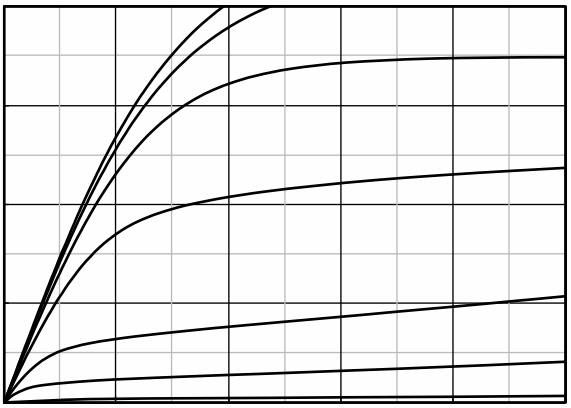
■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJG3D8G04HHQ	F1	YJG3D8G04H	5000	10000	100000	13“ reel

■ **Electrical Characteristics** (T_J=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max

■Typical Electrical and Thermal Characteristics Diagrams



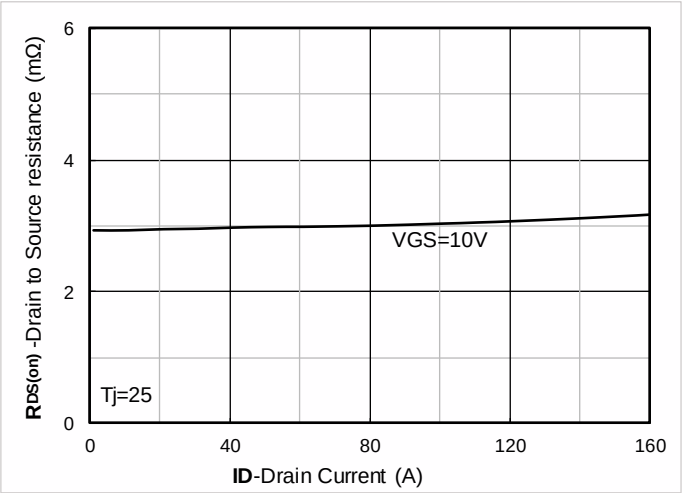


Figure 7. $R_{DS(on)}$ VS Drain Current

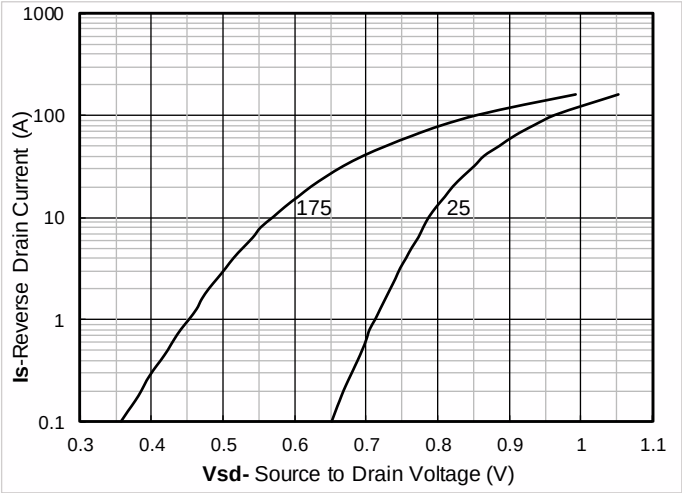
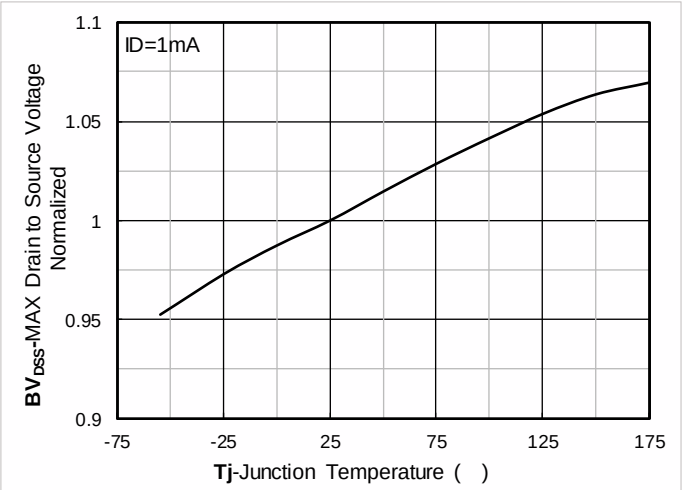
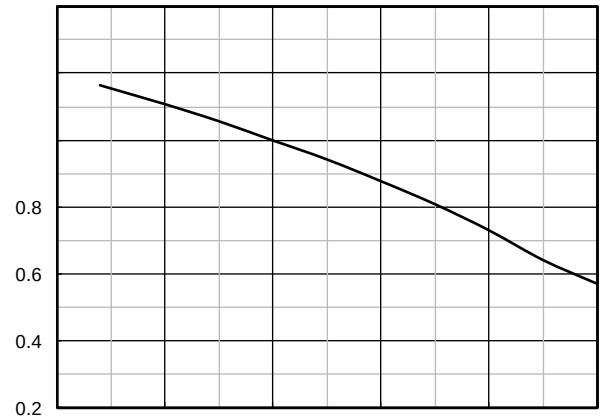
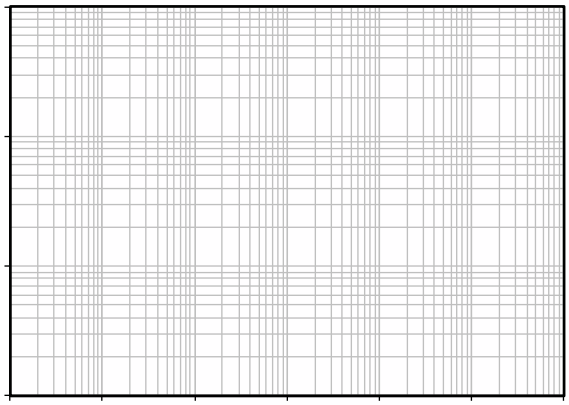
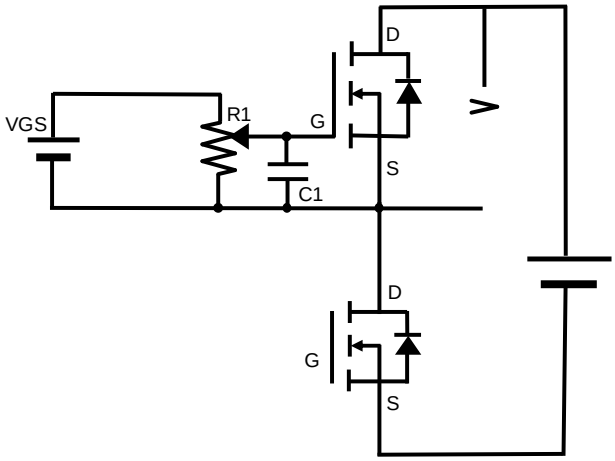


Figure 8. Forward characteristics of reverse diode








D
VGS
R1
G
V
S
C1
D
G
S

■ PDFN5060-8L-B-1.1mm Package information

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