P-Channel and P-Channel Complementary MOSFET

Product Summary

V_{DS}	-100V
I_D	-17A
$R_{DS(ON)}$(at V_{GS}=-10V)	85m
$R_{DS(ON)}$(at V_{GS}=-4.5V)	105m

100% EAS Tested

100% V_{DS} Tested

General Description

- Trench Power 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

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

Absolute Maximum Ratings (T_J=25 unless otherwise noted)

Parameter			Symbol	Limit	Unit
Drain-source Voltage			V_{DS}	-100	V
Gate-source Voltage			V_{GS}	±20	V
Continuous Drain Current (Note 1,2)	Steady-State	T_A=25 , V_{GS}= -10V	I_D	-3.4	A
		T_A=100 , V_{GS}= -10V		-2.1	
Continuous Drain Current (Note 1,3)	Steady-State	T_C=25 , V_{GS}= -10V		-17	
		T_C =100 , V_{GS}= -10V		-10.7	
Pulsed Drain Current	T_C=25 , t_p=100μs		I_{DM}	-60	A
Avalanche energy	V_G=-10V, R_G , L=0.5mH, IAS=-16A		EAS	64	mJ
Total Power Dissipation (Note 1,2)	Steady-State	T_A=25	P_D	2	W
		T_A=100		0.8	
Total Power Dissipation (Note 1,3)	Steady-State	T_C=25		59	
		T_C =100		23	
Junction and Storage Temperature Range			T_J ,T_{STG}	-55 +150	

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient (Note 2)	Steady-State	R	50	60	/W
Thermal Resistance Junction-to-Case	Steady-State	R	1.7	2.1	

Ordering Information (Example)

PREFERED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	

Electrical Characteristics (T_J=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}= 0V, I_D=-	-100	-	-	V

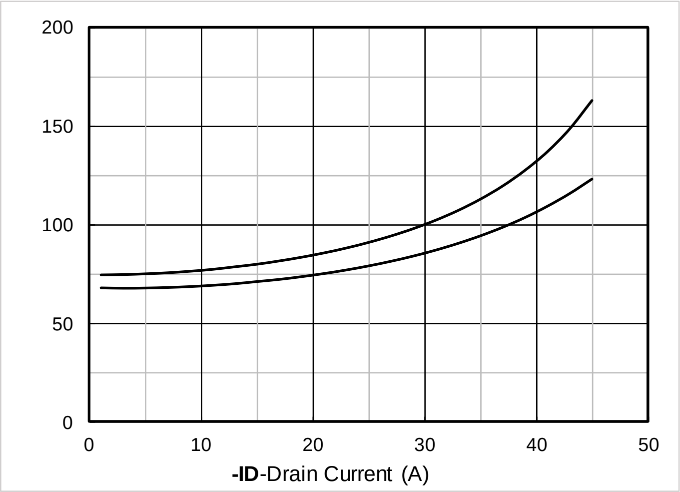


Figure 7. RDS(on) VS Drain Current

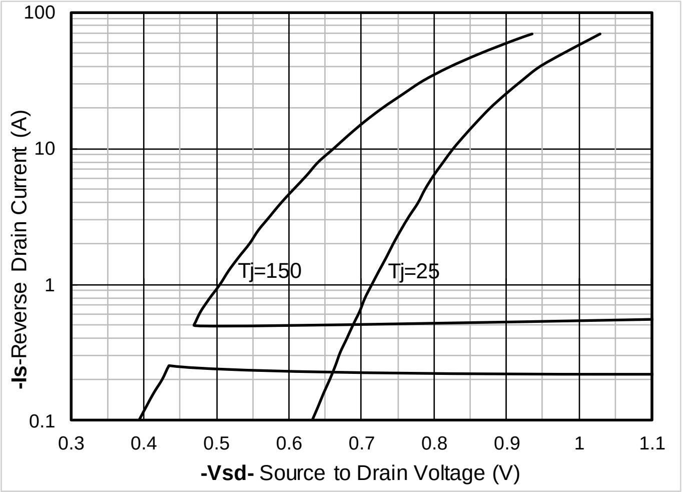


Figure 8. Forward characteristics of reverse diode

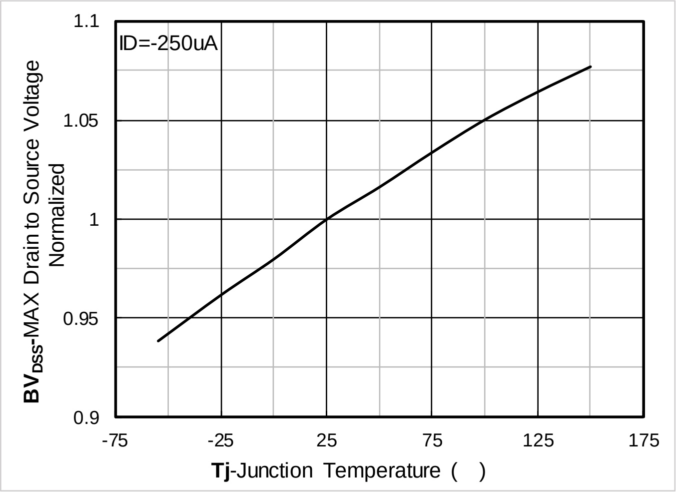


Figure 9. Normalized breakdown voltage

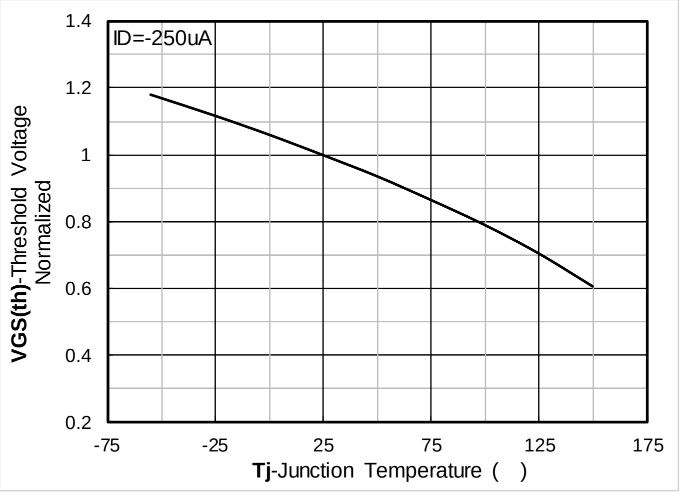


Figure 10. Normalized Threshold voltage

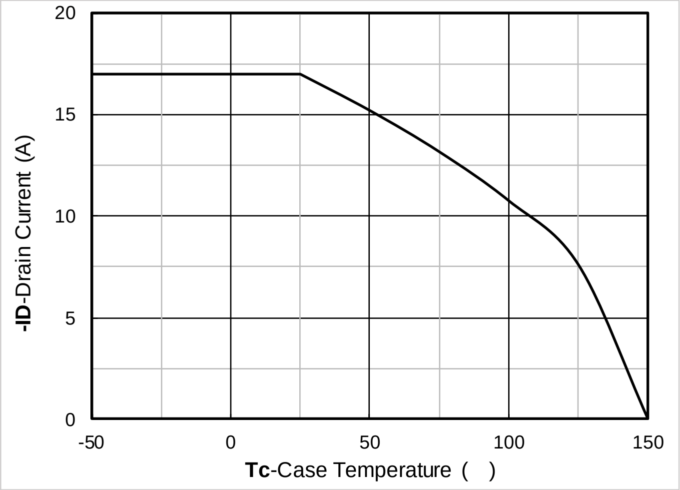


Figure 11. Current dissipation

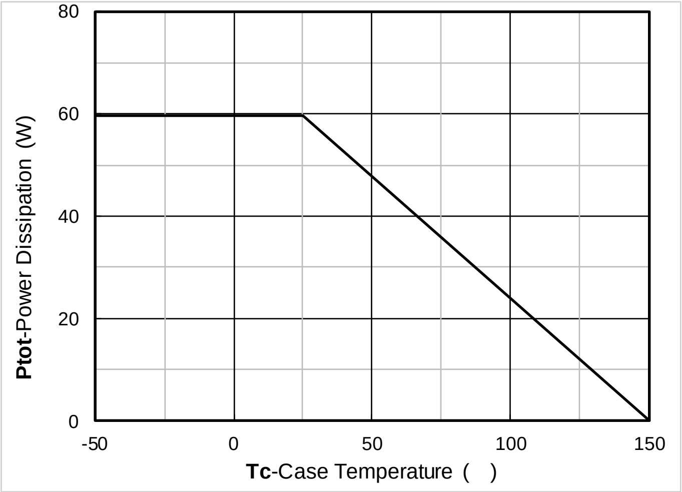


Figure 12. Power dissipation

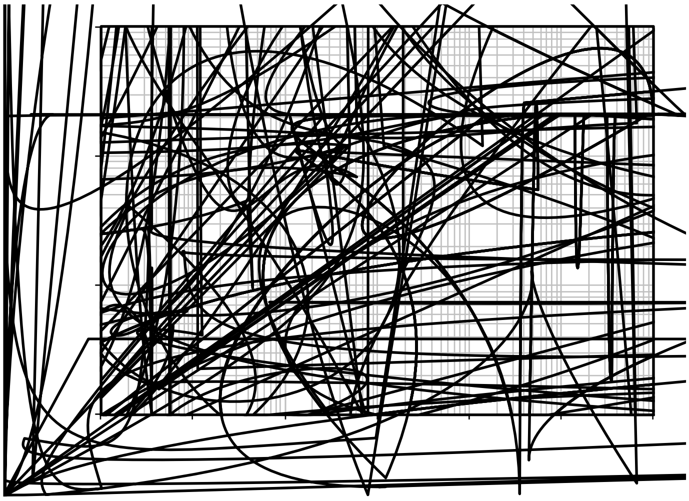
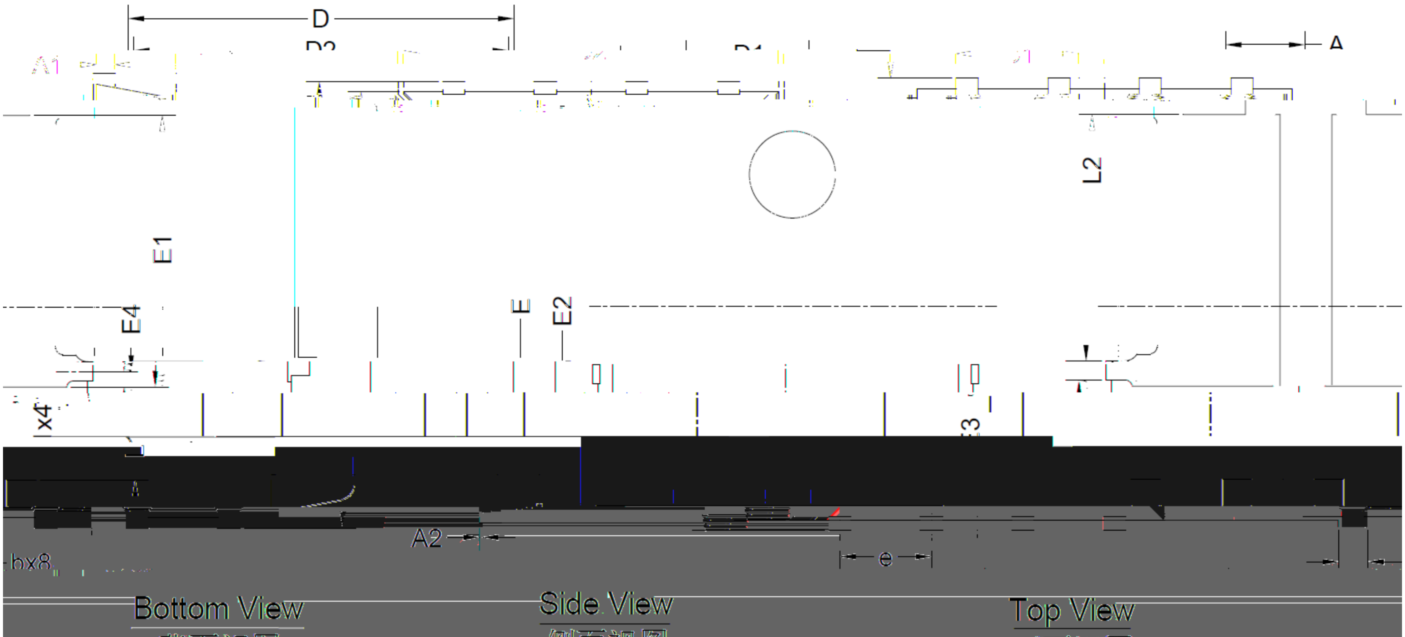
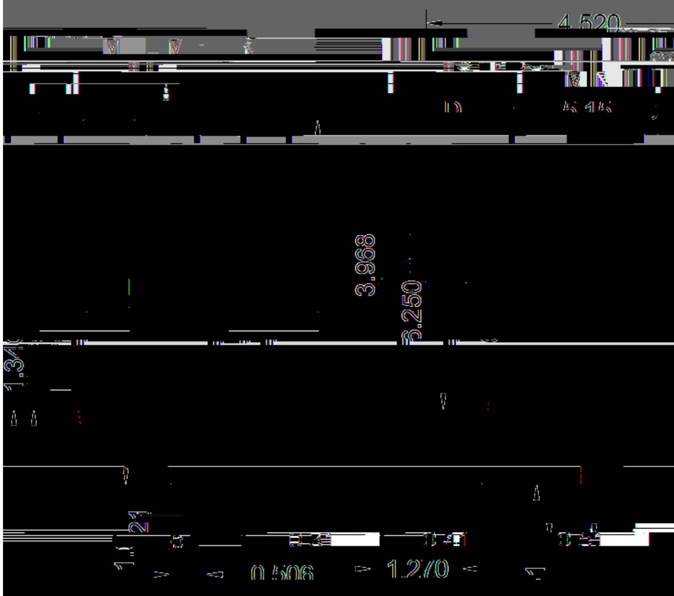


Figure 13.

PDFN5060-8L-E-1.1mm Package information





A	1.00	1.10	1.20
A1	0.254 BSC		
A2			0.10
D1	1.50	1.70	1.90
E1	3.52	3.72	3.92
E2	5.66	5.86	6.06
E3	0.254REF		
E4	0.21REF		
[illegible]	0.56	0.66	0.76
L2	0.50 BSC		
e	1.27 BSC		

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