

PDFN5×6 P

P-Channel MOSFET in a PDFN5×6 Plastic Package.

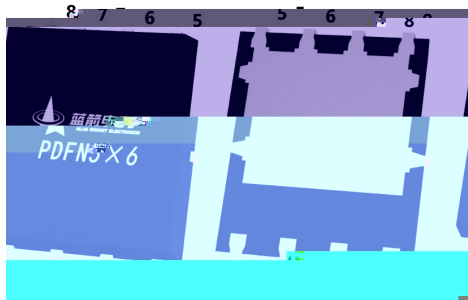
 $V_{DS}(V)=-30V$ $I_D=-65A$
 $R_{DS(ON)}@-10V<8m\Omega$ (TYP. 7mΩ)

 $R_{DS(ON)}@-4.5V<15m\Omega$ (TYP. 9mΩ)

HF Product.

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Notebook AC-in Load Switch,Battery Protection Charge/Discharge.



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V _{DS}	-30	V
Drain Current - Continuous		I _D (T _c =25)	-65	A
Drain Current – Pulsed		I _{DM}	-188	A
Gate-Source Voltage		V _{GS}	± 20	V
Power Dissipation		P _D (T _c =25)	50	W
Single Pulse Avalanche Energy(L=0.5mH)		E _{AS}	360	mJ
Avalanche Current(L=0.5mH)		I _{AS}	-30	A
Junction and Storage Temperature Range		T _j , T _{stg}	-55 to 150	
Thermal resistance, junction - ambient	t ≤ 10s	R _{θ JA}	25	/ W
	Steady-State		55	
Thermal resistance, junction - case	Steady-State	R _{θ JC}	2.5	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=-250\mu A, V_{GS}=0V$	-30	-33		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-30V, V_{GS}=0V$			-1	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	-1.4	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-20A$		7	8	m Ω
		$V_{GS}=-4.5V, I_D=-10A$		9	15	
Diode Forward Voltage	V_{SD}	$I_S=-1A, V_{GS}=0V$			-1.2	V
Input Capacitance	C_{iss}	$V_{DS}=-25V, V_{GS}=0V, f=1.0MHz$		3260		pF
Output Capacitance	C_{oss}			335		
Reverse Transfer Capacitance	C_{rss}			330		
Gate resistance	R_g	$V_{GS}=0V, V_{DS}=0V, f=1MHz$		5.6		Ω

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=-10V, \quad V_{DS}=-15V,$ $I_D=-20A$		51		nC
Total Gate Charge	$Q_{g(4.5V)}$			32		
Gate Source Charge	Q_{gs}			11		
Gate Drain Charge	Q_{gd}			13		
Turn-On Delay Time	$t_{d(on)}$			12.5		
		$V_{GS}=-10V \quad V_{DS}=-15V$ $R_L=0.75\Omega \quad R_{GEN}=3\Omega$				

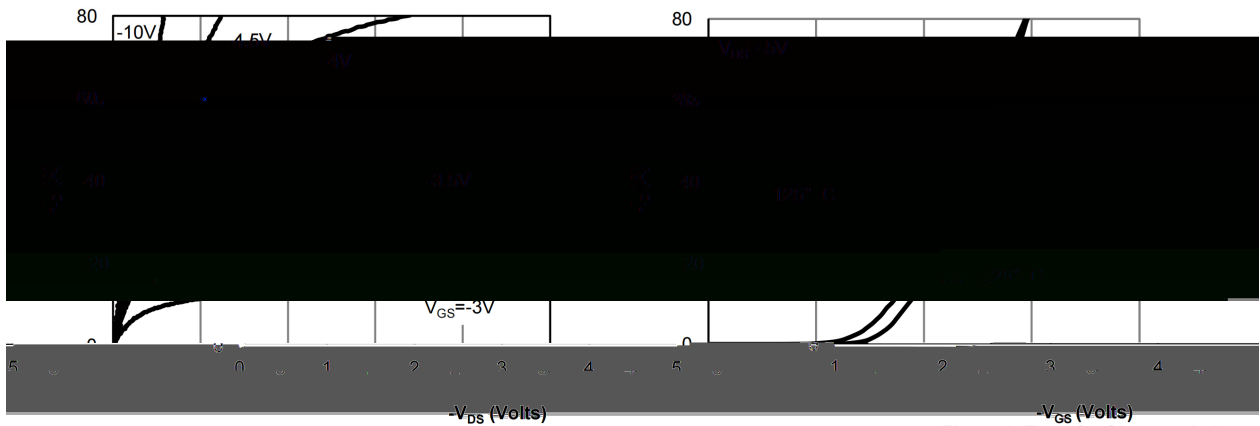


Figure 1: On-Region Characteristics

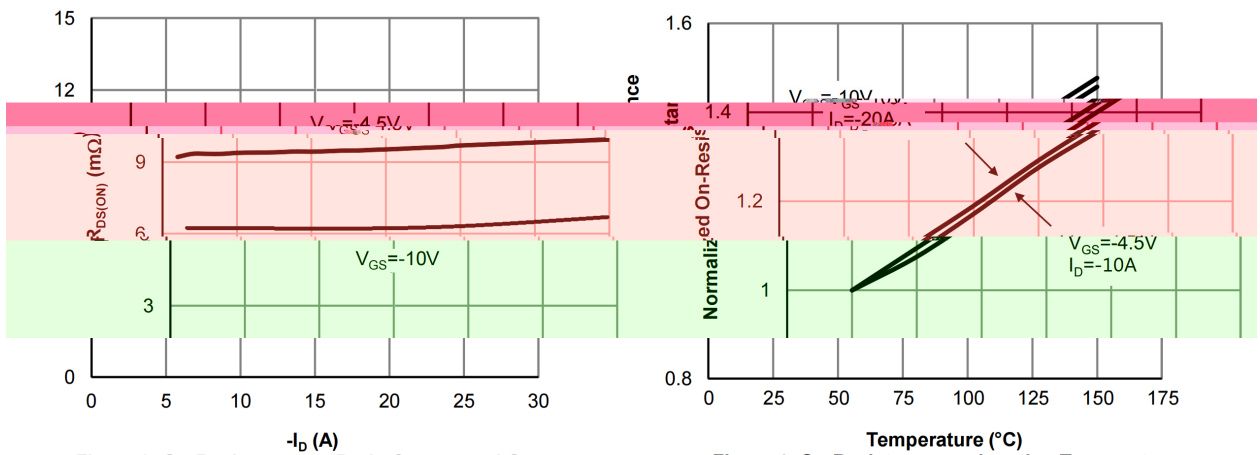


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

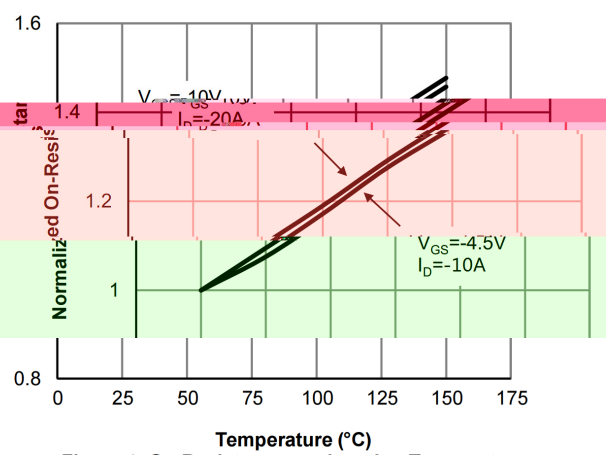


Figure 4: On-Resistance vs. Junction Temperature

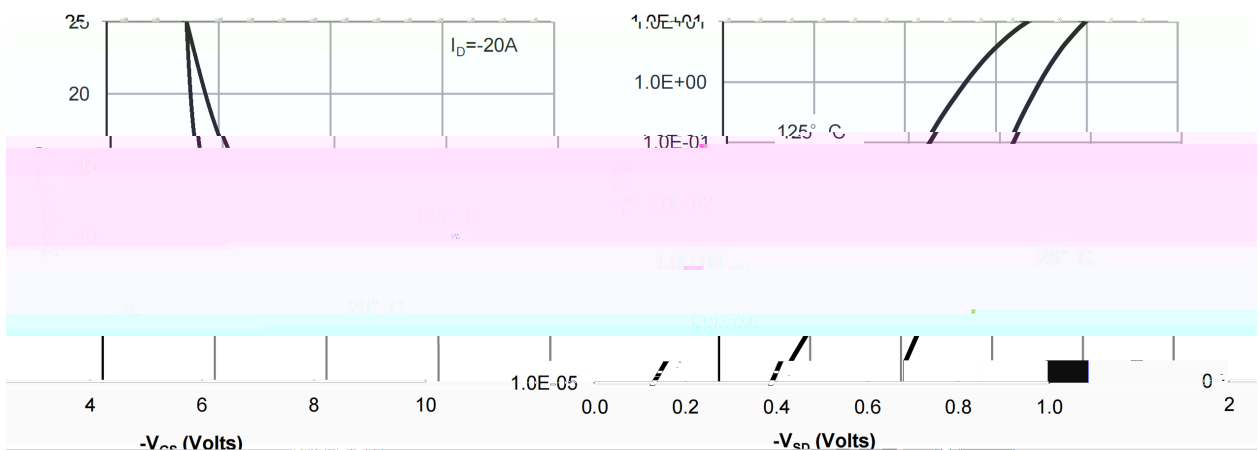


Figure 5: On-Resistance vs. Gate-Source Voltage

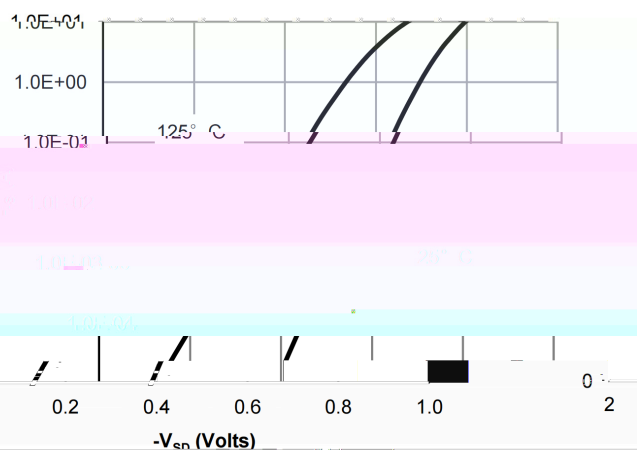


Figure 6: Body-Diode Characteristics

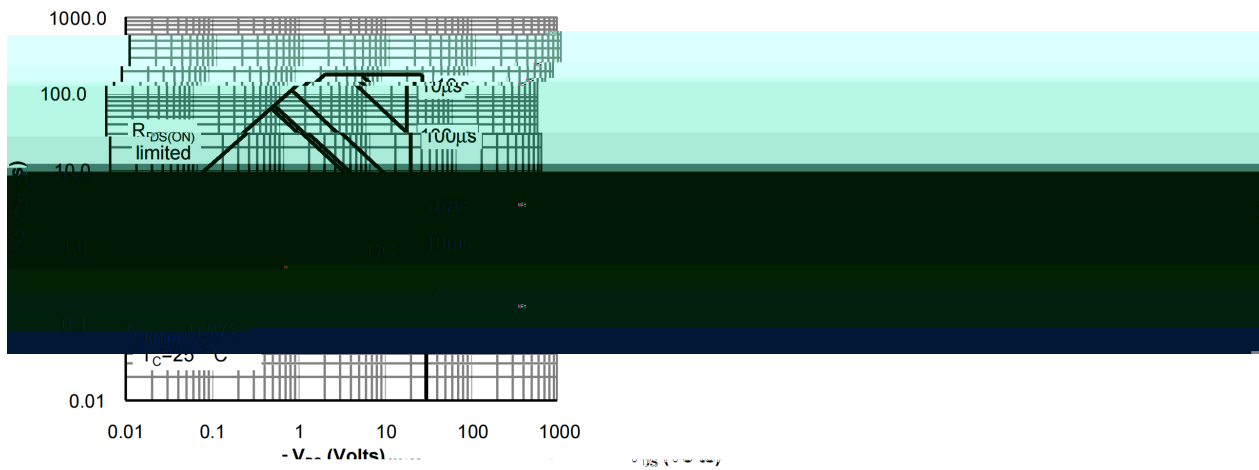
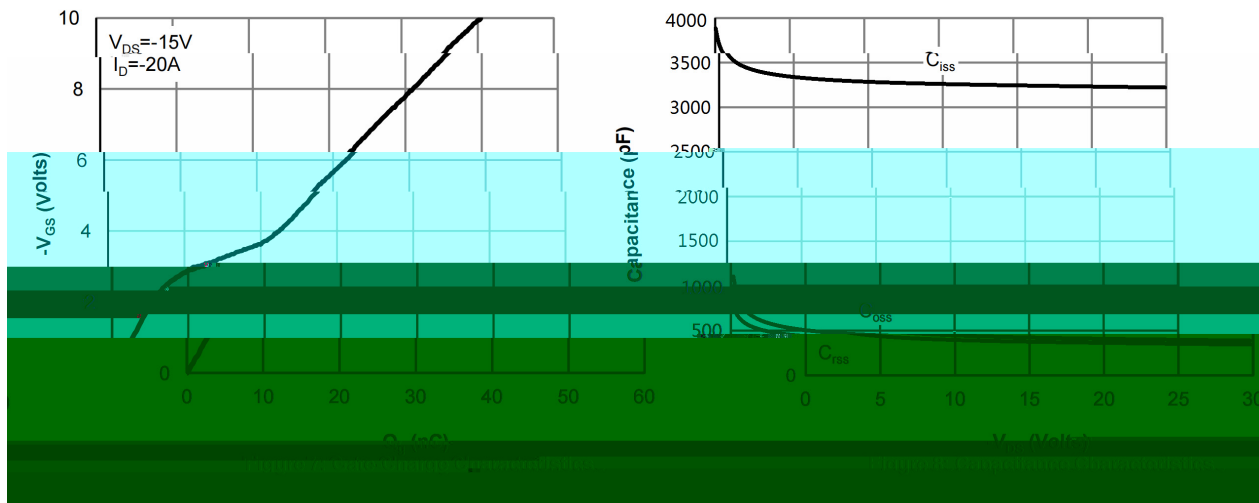


Figure 9: Maximum Forward Biased Safe Operating Area

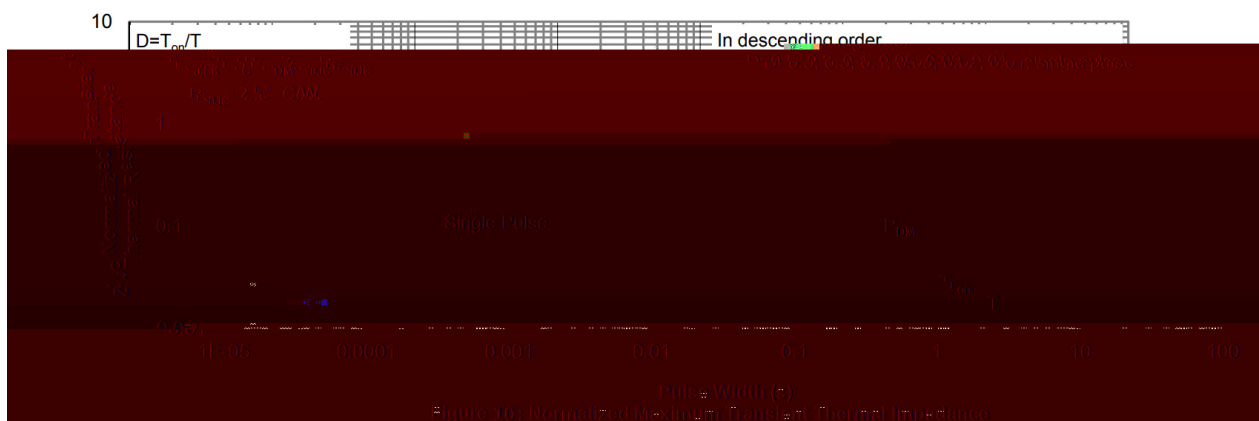
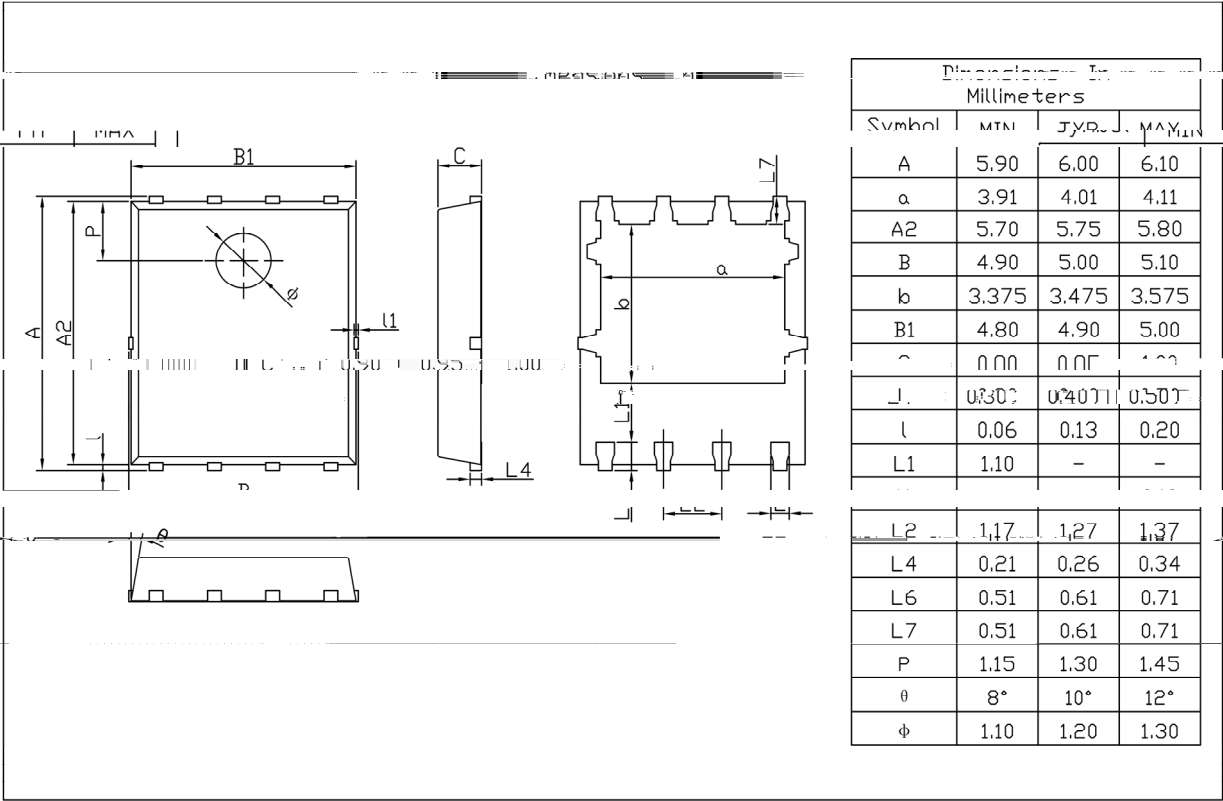


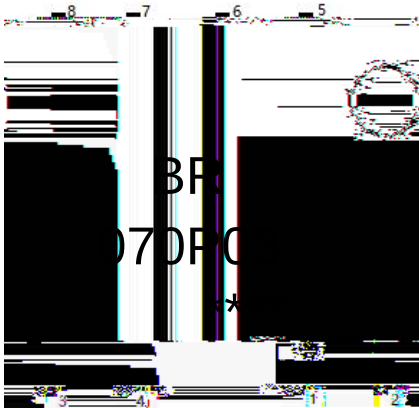
Figure 10: Normalized Maximum Transient Thermal Impedance

PDFN5 X6

Unit:mm



Rev.01 202209



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070P03

Note

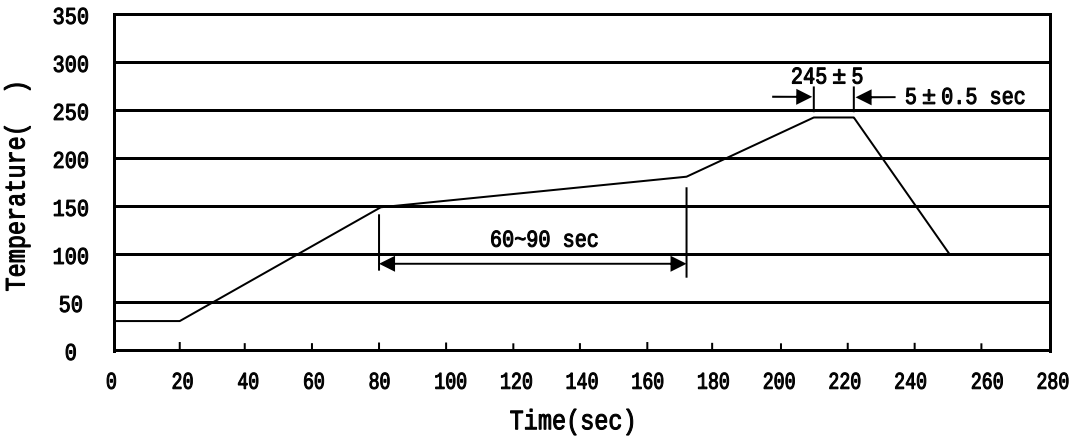
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Company Code

070P03

Product Type Code

Lot No. Code, code change with Lot No



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
PDFN5×6	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366