

Rev.A May.-2022

PDFN5×6A N

Dual N-CHANNEL MOSFET in a PDFN5×6A Plastic Package.

Dual N-Ch

$V_{DS}(V)=60V$

$I_D=24.5A$

$R_{DS(ON)}<13m\Omega(V_{GS}=10V)$

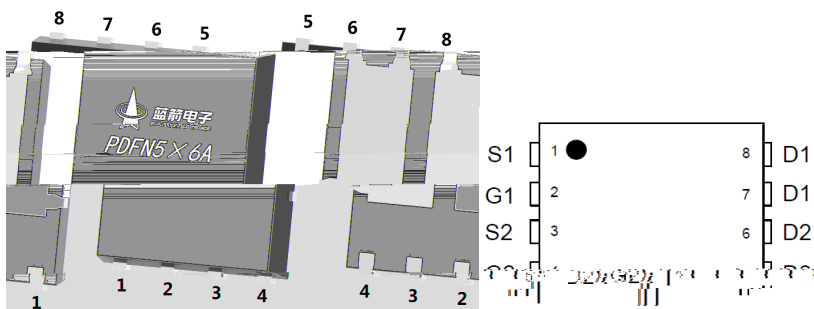
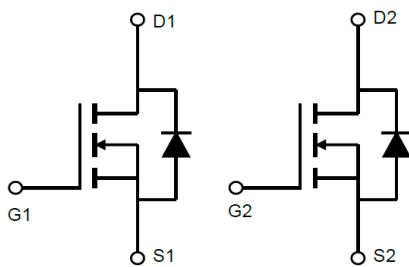
$R_{DS(ON)}<18m\Omega(V_{GS}=4.5V)$

HF Product.

PWM

LED

PWM Application, Load Switch, Power Management, Dimming LED.

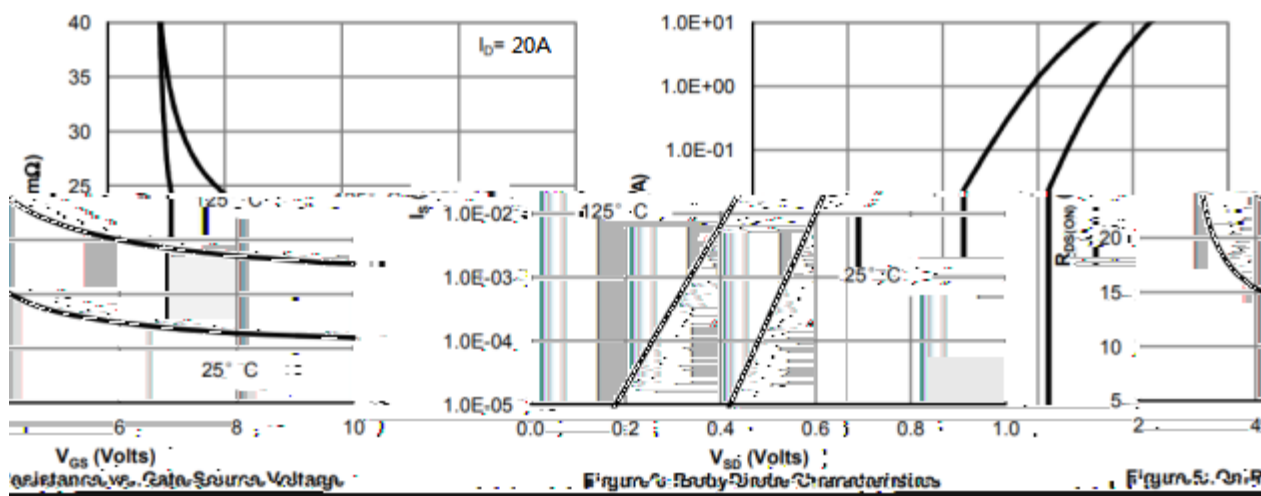
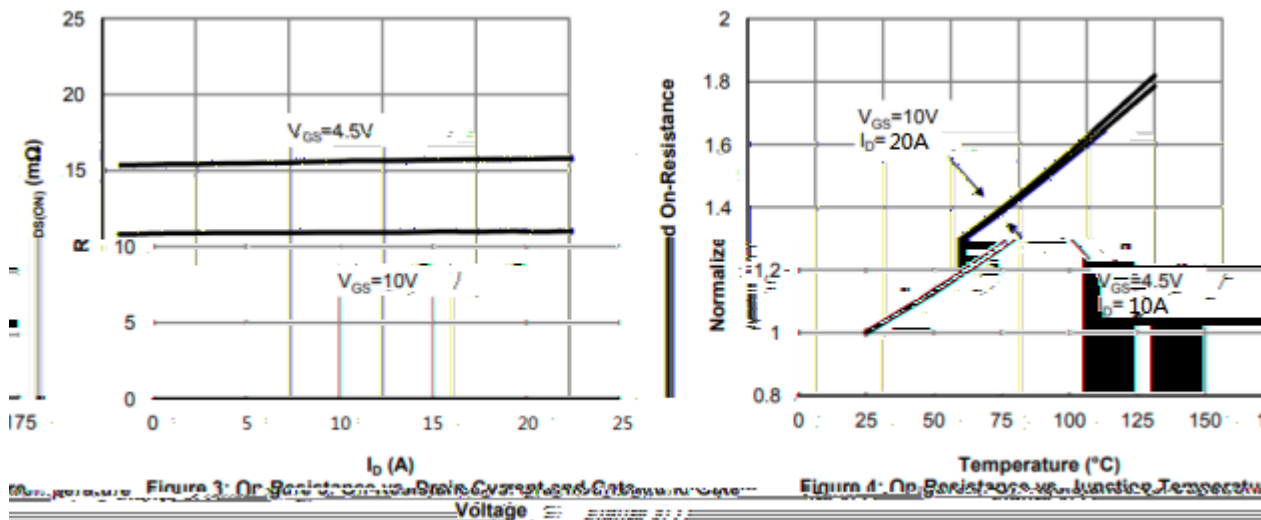
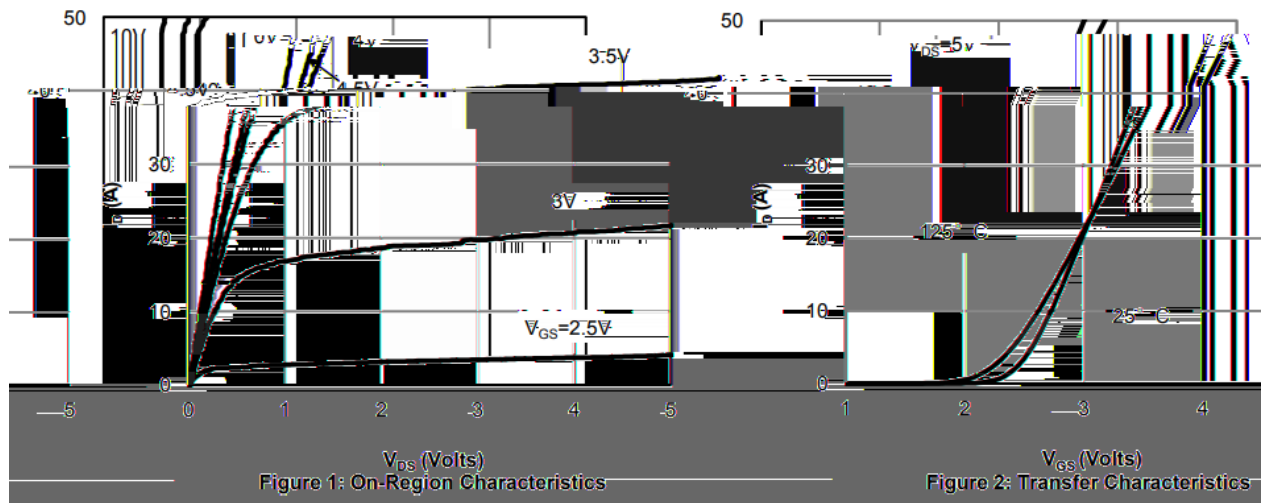


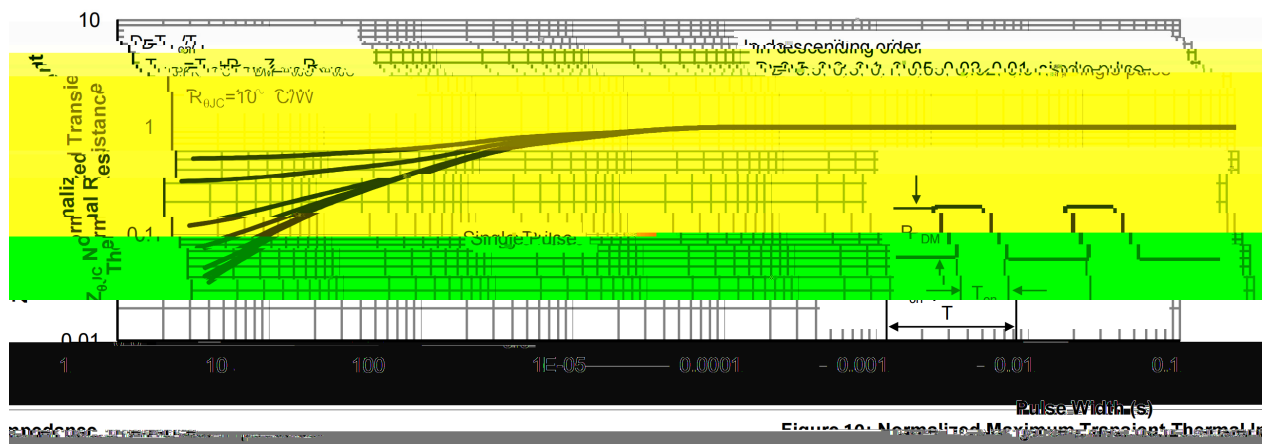
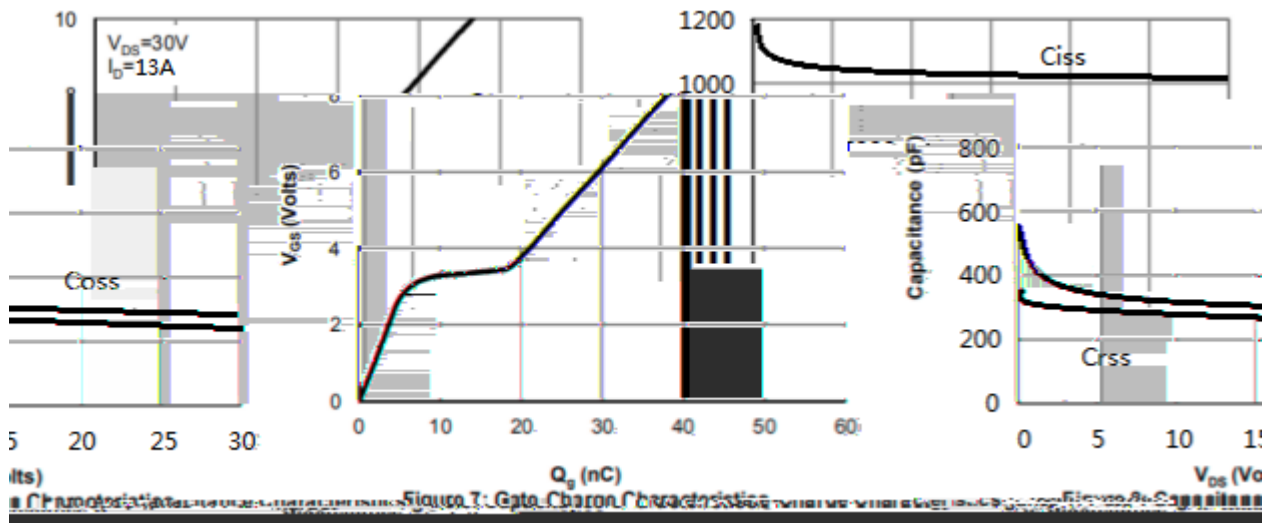
。 See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	60	V
Drain Current		$I_D(T_C=25^{\circ}C)$	24.5	A
Drain Current - Pulsed		I_{DM}	95	A
Gate-Source Voltage		V_{GS}	± 20	V
Single Pulsed Avalanche Energy		E_{AS}	70	mJ
Avalanche Current		I_{AS}	20	A
Power Dissipation		$P_D(T_C=25^{\circ}C)$	12.5	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	$^{\circ}C$
Junction-to-Ambient	$t \leq 10$	$R_{\theta JA}$	35	$^{\circ}C/W$
Junction-to-Ambient	Steady-State		70	
Junction-to-Case	Steady-State	$R_{\theta JC}$	10	

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$	$I_D=250\mu A$	60	64		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V$	$V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$	$V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$	$I_D=20A$		11.5	13	m Ω
		$V_{GS}=4.5V$	$I_D=10A$		15.5	18	m Ω
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_S=1A$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $f=1.0MHz$	$V_{GS}=0V$		1010		pF
Output Capacitance	C_{oss}				250		
Reverse Transfer Capacitance	C_{rss}				280		
Gate resistance	R_g	$V_{GS}=0V$ $f=1MHz$	$V_{DS}=0V$		2.3		Ω
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $I_D=13A$	$V_{DS}=30V$		13.5		nC
Total Gate Charge	$Q_{g(4.5V)}$				6.5		
Gate Source Charge	Q_{gs}				2.5		
Gate Drain Charge	Q_{gd}				3.0		

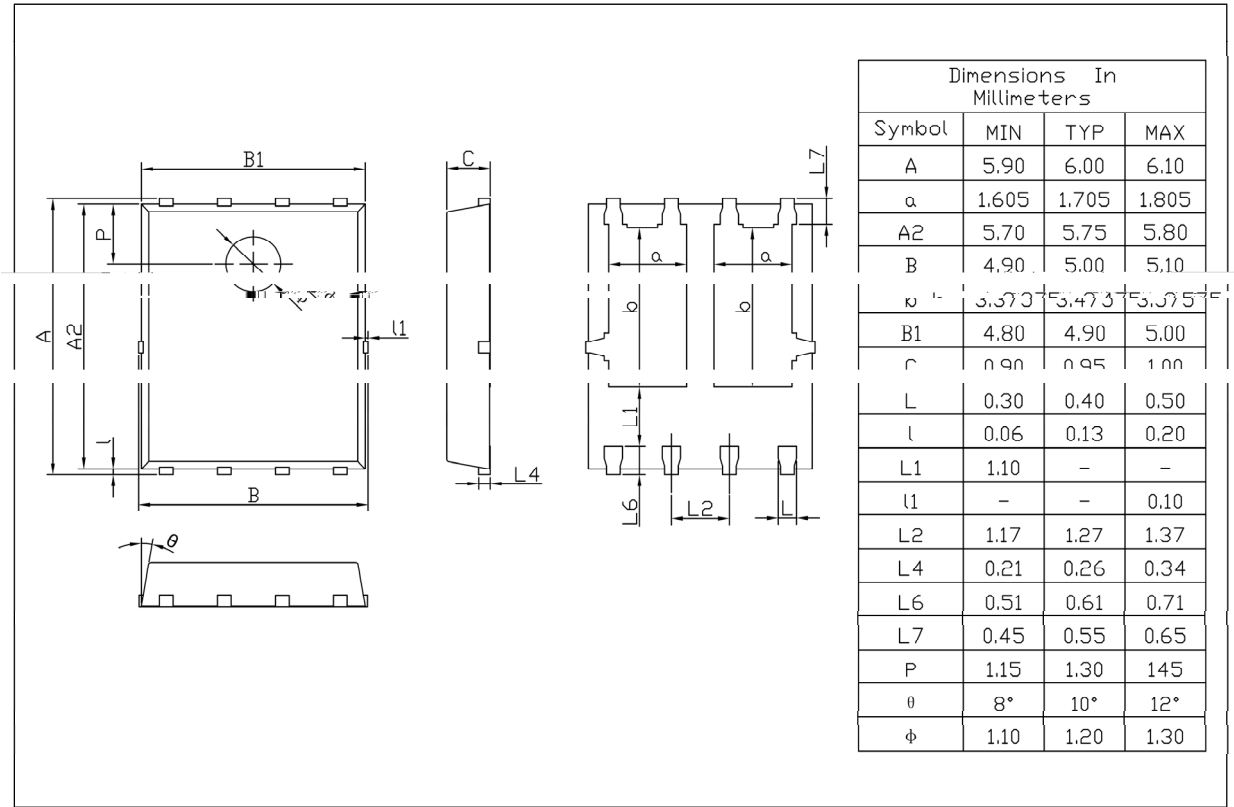
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=30V$ $R_L=2.3\Omega$ $R_{GEN}=3\Omega$		5		ns
Turn-On Rise Time	t_r			3		
Turn-Off Delay Time	$t_{d(off)}$			19		
Turn-Off Fall Time	t_f			3		





PDFN5 X6A

Unit:mm



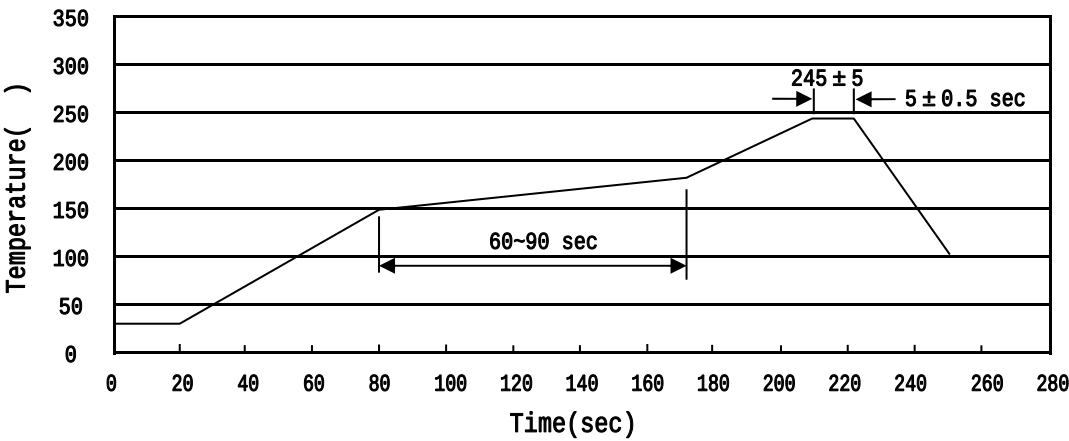
Rev.01 202209



BR	
120N06S	

Note	
BR	Company Code
120N06S	Product Type
****:	Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|----|-----------|--|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 °C , Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5 °C , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 °C/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
PDFN5×6A	5000	2	10000	6	60000	13"×12	360×360×50	380×335×366