

Rev.A Dec.-2022

PDFN 3x3A-8L P MOS

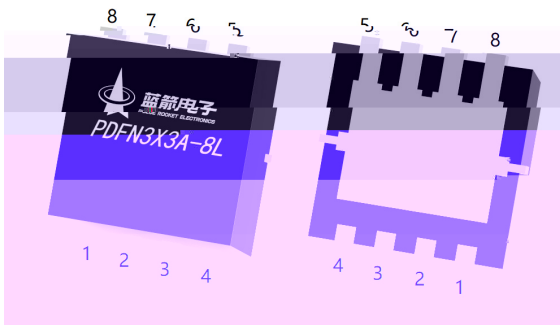
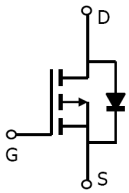
P-Channel Enhancement Mode Field Effect Transistor in a PDFN 3x3A-8L Plastic Package.

 $V_{DS} (V) = -40V$ 
 $I_D = -41A (V_{GS} = \pm 20V)$ 
 $R_{DS(ON)} @ -10V \ 13.5mR (Typ. 11.6mR)$ 

HF Product.

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Notebook AC-in load switch, Battery protection charge/discharge.



出脚	定义
Pin1	S
Pin2	S

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-40	V
Drain Current - Continuous	$I_D(T_c=25^\circ\text{C})$	-41	A
Drain Current – Pulsed	$I_{DM}$	-72	A
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	30	W
Single Pulse Avalanche Energy(L=0.5mH)	$E_{AS}$	317.5	mJ
Avalanche Current(L=0.5mH)	$I_{AS}$	-31.5	A
Junction and Storage Temperature Range	$T_j, T_{stg}$	-55 to 150	
Thermal resistance, junction - ambient	$t \leq 10s$	$R_{JA}$	22
	Steady-State		55
Thermal resistance, junction - case			/ W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=0.75$ $R_{GEN}=3$		11		ns
Turn-On Rise Time	$t_r$			7.8		
Turn-Off Delay Time	$t_{d(off)}$			44		
Turn-Off Fall Time	$t_f$			18		

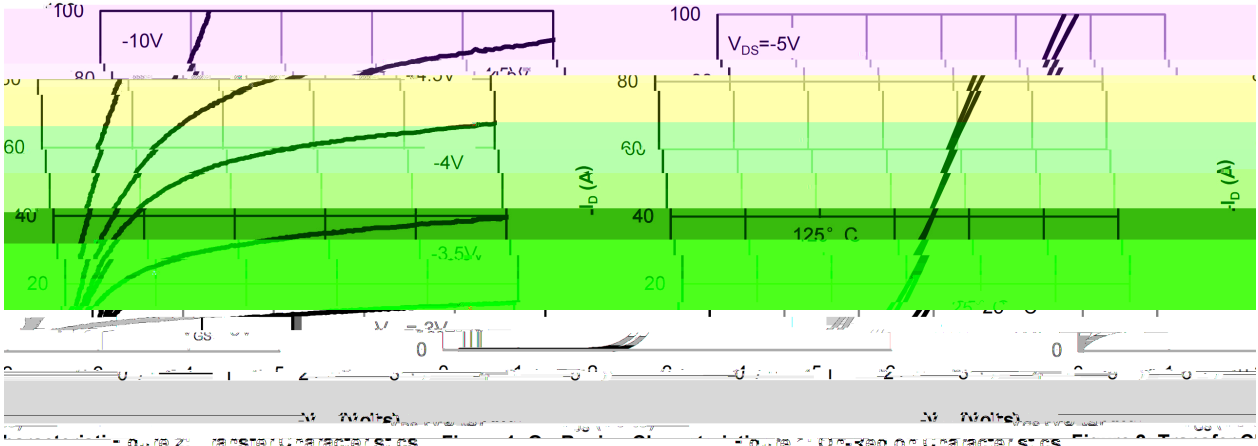


Figure 2: Transfer Characteristics

Figure 3: On-Regulation Characteristics

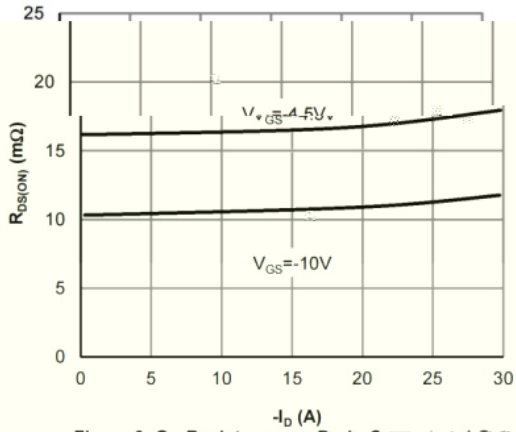


Figure 3: On-Resistance vs. Drain Current and Gate

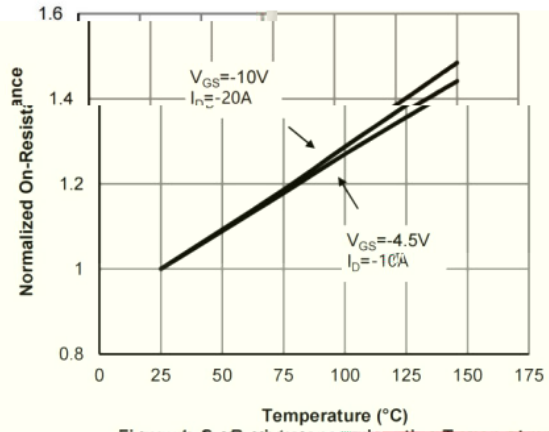
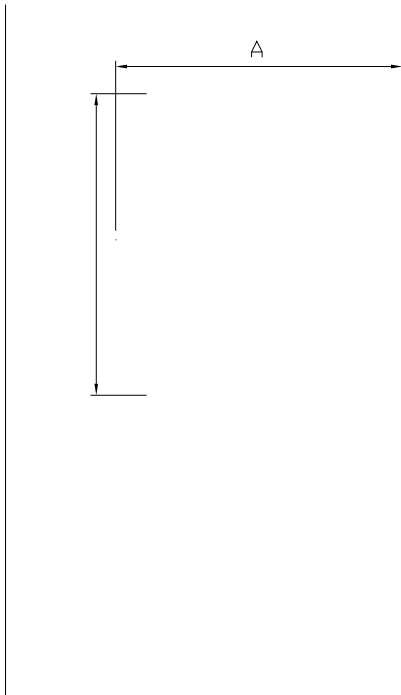


Figure 4: On-Resistance vs. Junction Temperature



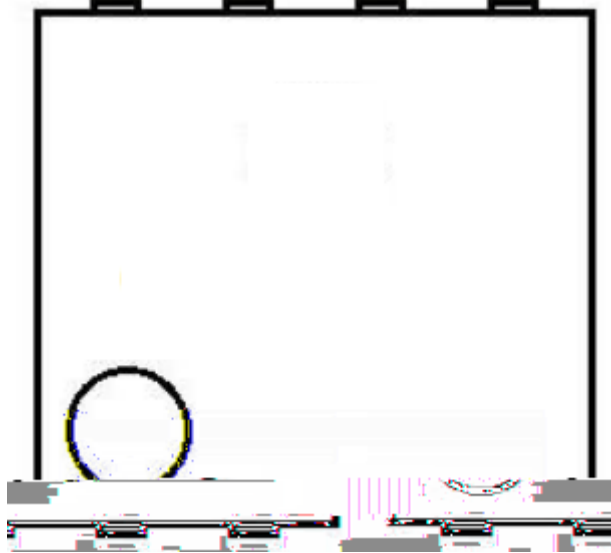
PDFN3X3A-8L

Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.10	3.15	3.20
B	3.20	3.30	3.40
B1	2.95	3.00	3.05

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### Temperature Profile for IR Reflow Soldering(Pb-Free)


**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
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Package Type	Units				Dimension (unit mm <sup>3</sup> )		