/ Descriptions

PDFN 3×3A-8L P MOS

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

/ Features

V_{DS} (V) = -30V

I_D =-45A (V_{GS} = 20V)

$R_{DS(ON)}$@-10V 7.5mR(Typ.6.5mR)

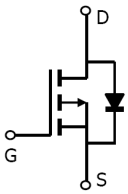
AEC-Q101 Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

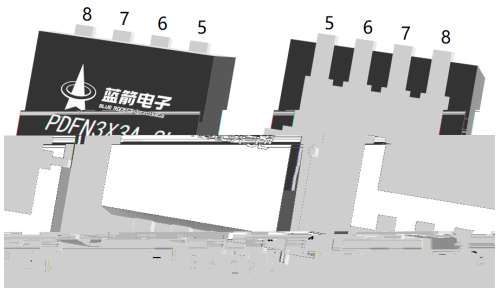
/

Notebook AC-in load switch, Battery protection charge/discharge, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	S
Pin2	S
Pin3	S
Pin4	G
Pin5	D
Pin6	D
Pin7	D
Pin8	D

/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Drain Current - Continuous	I_D(T_c=25)	-45	A
Drain Current – Pulsed	I_{DM}	-126	A
Gate-Source Voltage	V_{GS}	20	V
Power Dissipation	P_D(T_c=25)	30	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	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=-10V V_{DS}=-15V R_L=0.75 R_{GEN}=3		12.5		ns
Turn-On Rise Time	t_r			19		
Turn-Off Delay Time	$t_{d(off)}$			125		
Turn-Off Fall Time	t_f			67		

/ Electrical Characteristic Curve

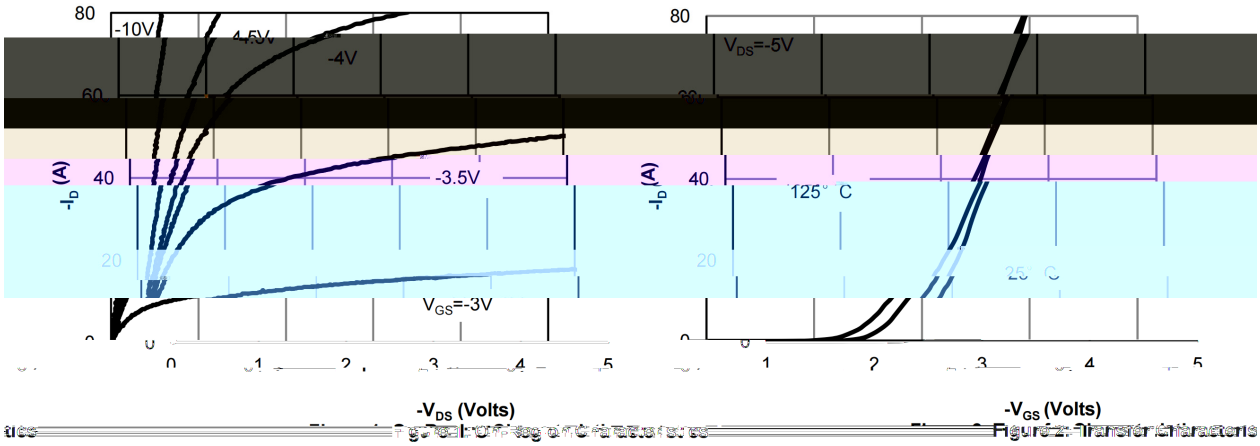


Figure 2: Transfer Characteristics

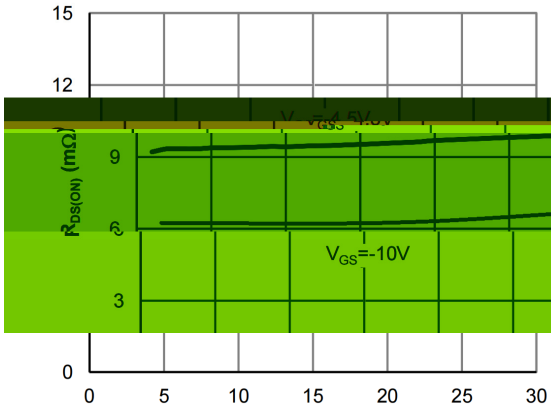


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

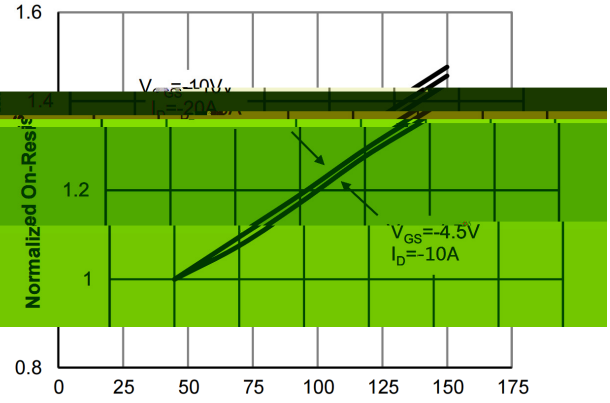


Figure 4: On-Resistance vs. Junction Temperature

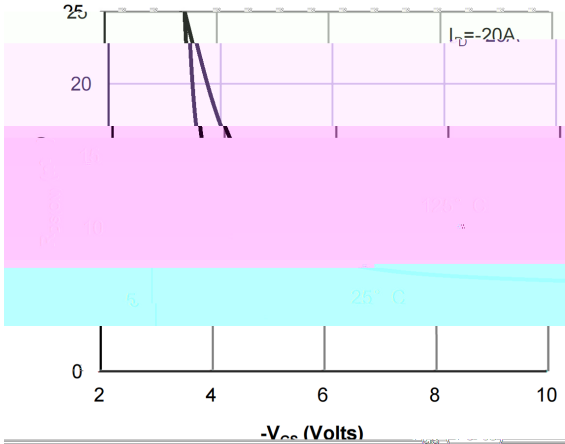


Figure 5: On-Resistance vs. Gate-Source Voltage

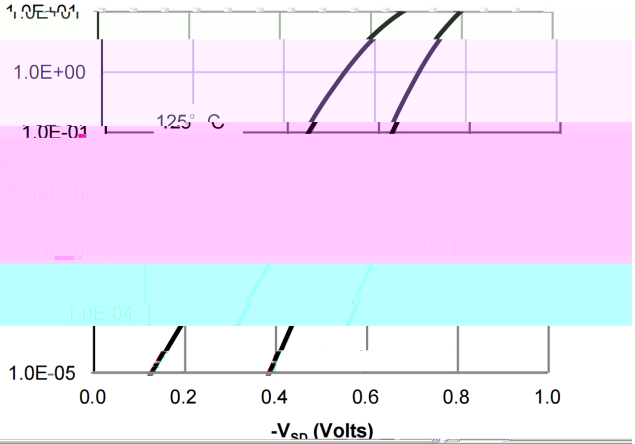
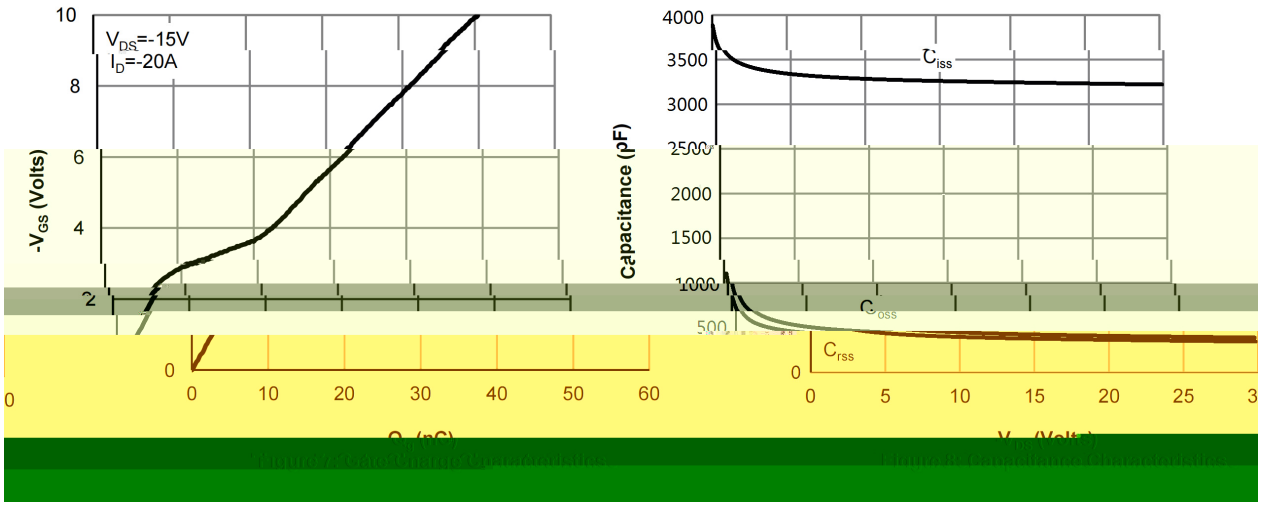
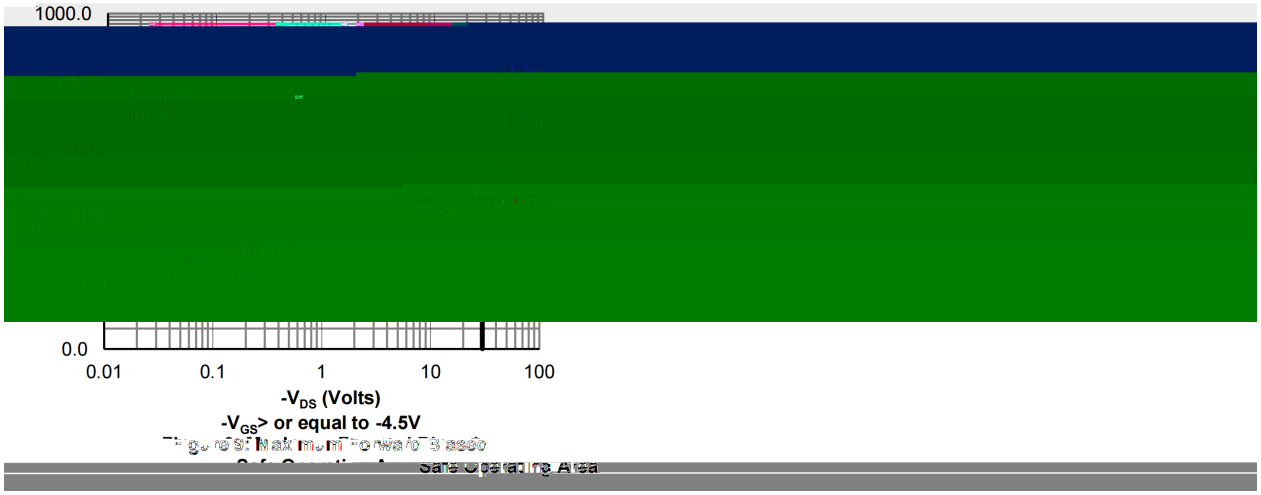
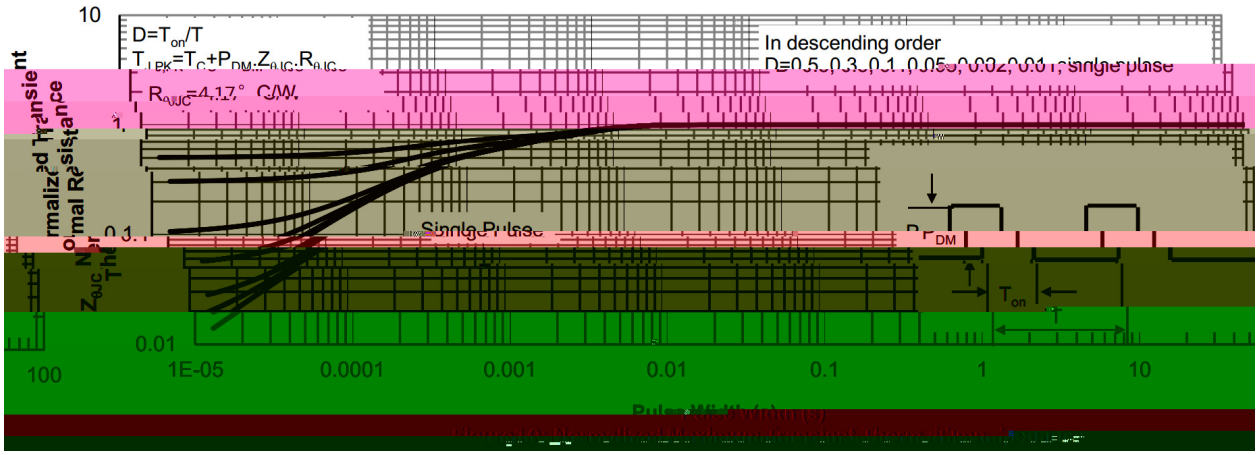


Figure 6: Body-Diode Characteristics

/ Electrical Characteristic Curve



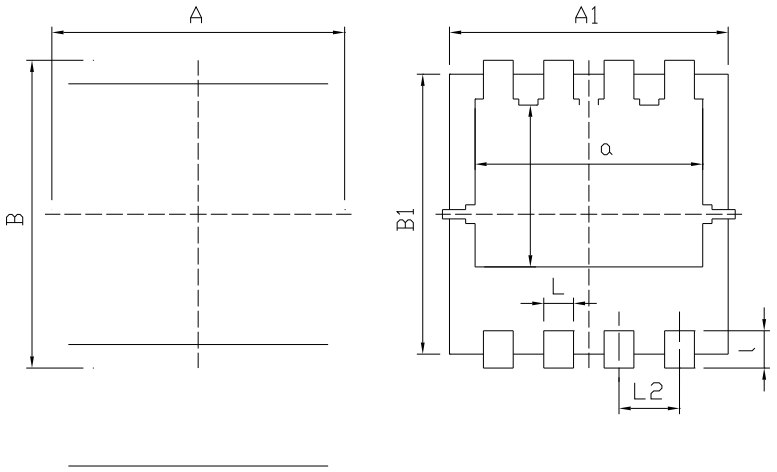




/ Package Dimensions

PDFN3X3A-8L

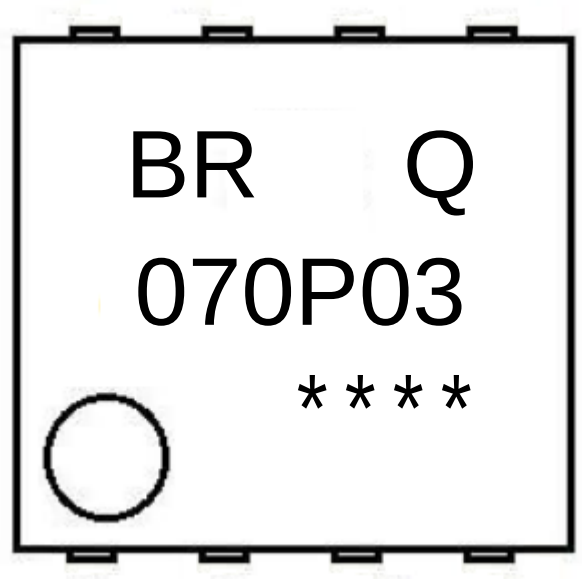
Unit:mm



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
C	0.75	0.80	0.85
L	0.25	0.30	0.35
L1	-	-	0.75
L2	0.55	0.65	0.75
L4	0.14	0.15	0.20
a	2.35	2.45	2.55
b	1.635	1.735	1.835

Rev.00 202011

/ Marking Instructions



BR

Q

070P03

****

Note:

BR:	Company Code
Q:	Automobile halogen-free product Code
070P03:	Product Type Code
****:	Lot No. Code, code change with Lot No

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

Note:

1	150	200	60	120sec;	1.Preheating:150~200 , Time:60~120sec.
2	255±5			5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3		2	10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box