/ Descriptions

PDFN3×3A-8L P MOS

P-Channel Enhancement Mode Field Effect Transistor in a PDFN3×3A-8L Plastic Package.

/ Features

V_{DS} (V) = -60V I_D =-23A (V_{GS} = ± 20V)

$R_{DS(ON)}$@-10V ≤ 40mΩ (Typ.36mΩ)

$R_{DS(ON)}$@-4.5V ≤ 50mΩ (Typ.44mΩ)

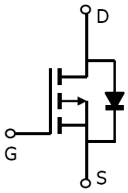
AEC-Q101 Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

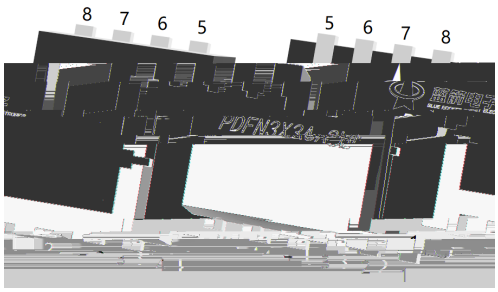
/

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

/ Marking

See Marking Instructions.

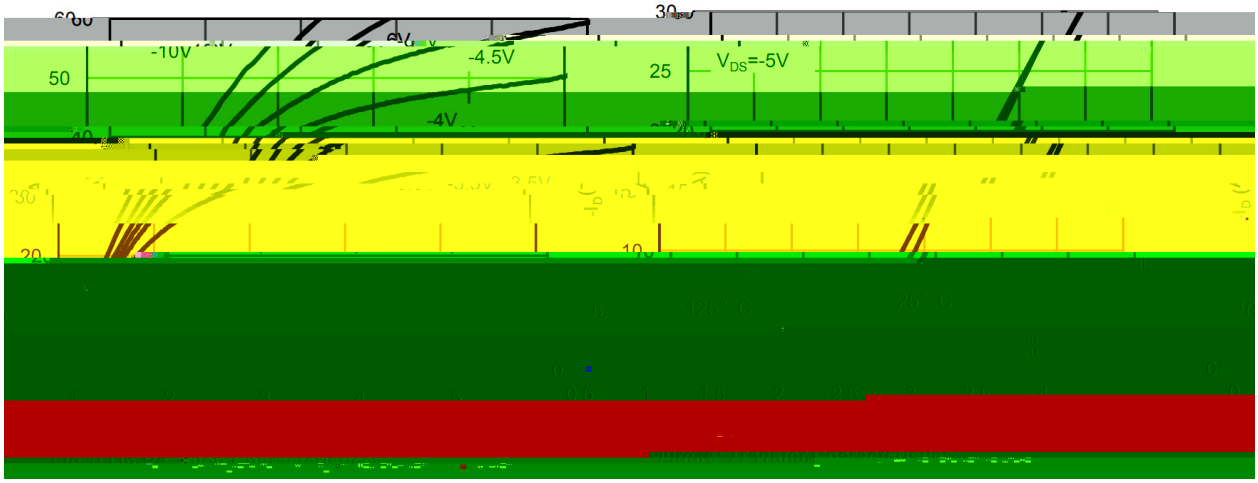
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-60	V
Gate-Source Voltage	V_{GSS}	±20	V
Continuous Drain Current	I_D (T_c=25°C)	-23	A
Pulsed Drain Current	I_{DM}	-73	A
Avalanche Current	I_{AS}	17.5	A
Avalanche energy L=0.5mH	E_{AS}	320	mJ
Power Dissipation for Single Operation	P_D (T_c=25)	35	W

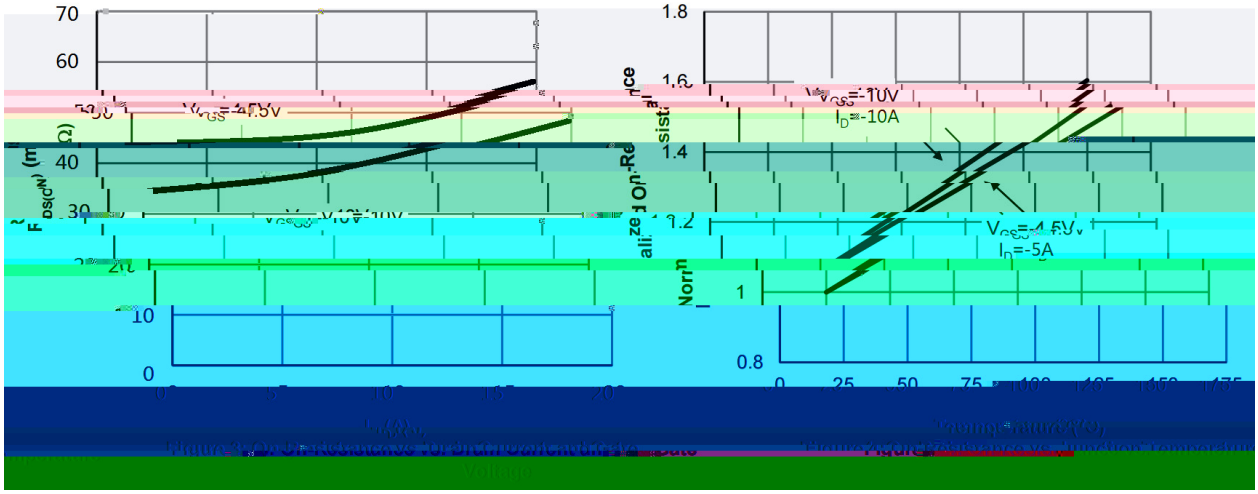
)Maximum Junction Temperatu55.62 1.6921 0 TD0 Tc81075j/T002 Tc.0025 Tw((T)Tm-.4720e480043 T604 Tm0 T

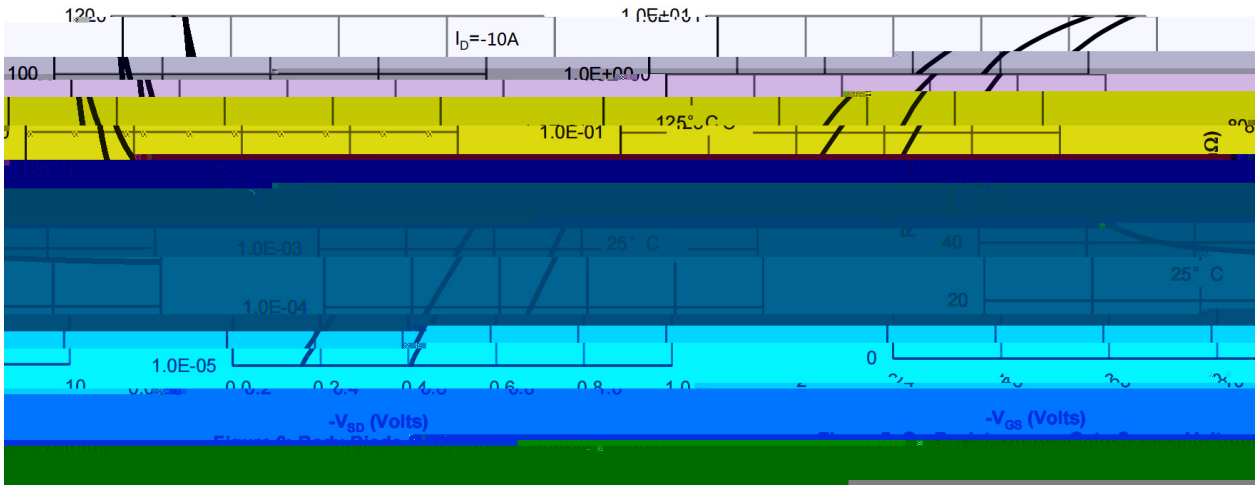
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=-10V V_{DS}=-30V I_D=-6.2A		46.5		nC
Total Gate Charge	$Q_{g(4.5V)}$			22.7		
Gate-Source Charge	Q_{gs}			9.1		
Gate-Drain Charge	Q_{gd}			9.2		
Turn-on Delay Time	$t_{d(ON)}$	V_{GS}=-10V V_{DS}=-30V R_L=4.7Ω R_{GEN}=3Ω		9.8		ns
Turn-on Rise Time	t_r			6.1		
Turn-off Delay Time	$t_{d(OFF)}$			44		
Turn-off Fall Time	t_f			12.7		

/ Electrical Characteristic Curve







/ Electrical Characteristic Curve

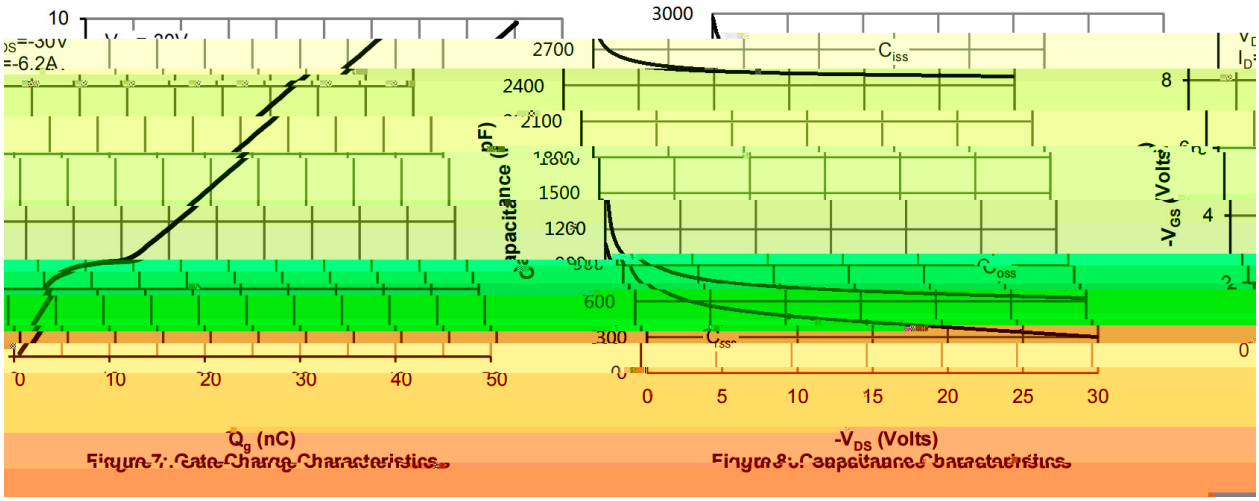
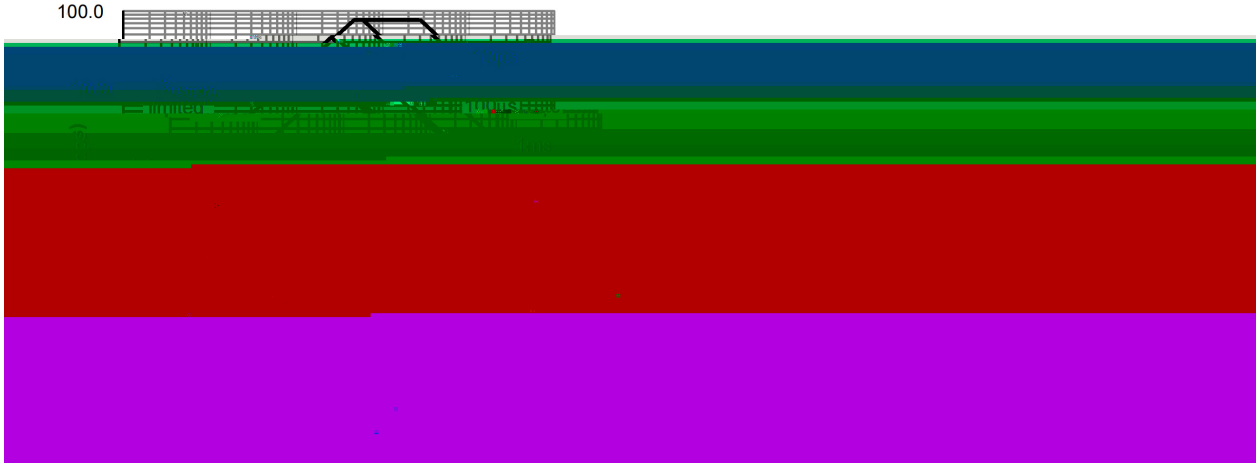
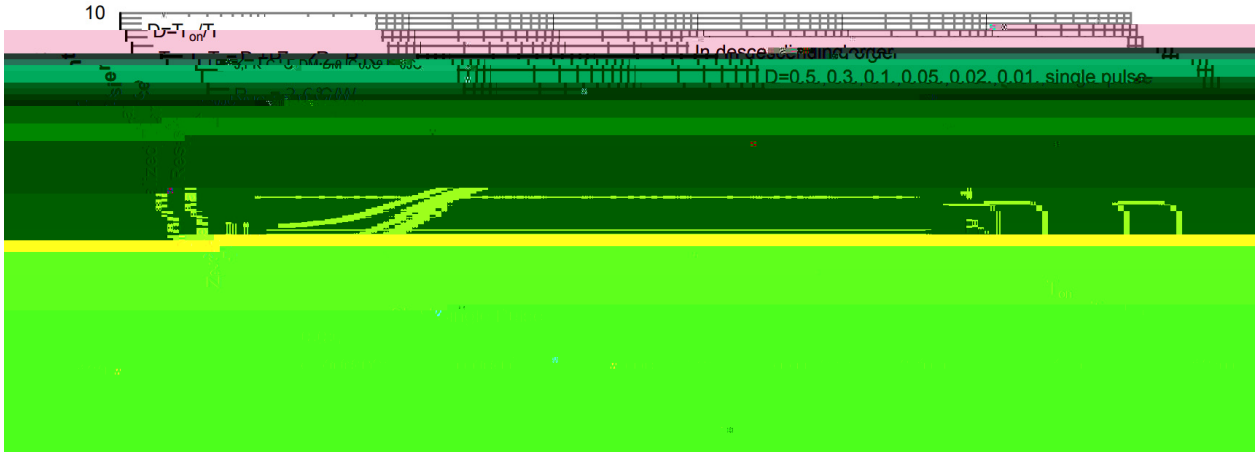


Figure 7. Gate Charge Characteristics

Figure 8. Capacitance Characteristics

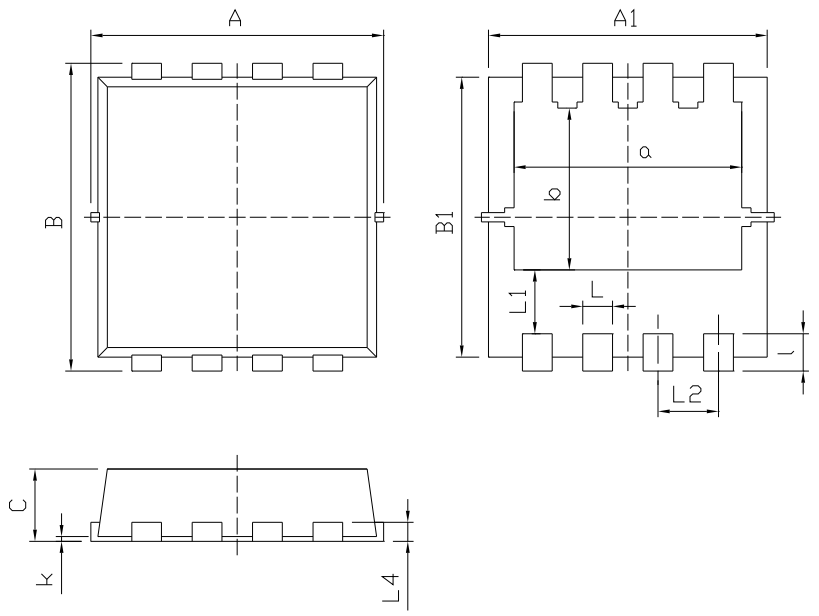




/ Package Dimensions

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
k	0.00	-	0.05
l	0.30	0.40	0.50

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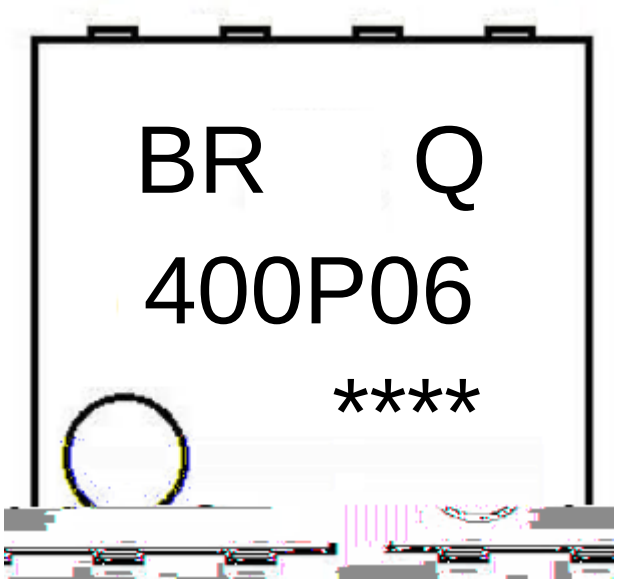
/ Marking Instructions



BR

Q

400P06

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Note:

BR:	Company Code
Q:	Automobile halogen-free product Code
400P06:	Product Type Code
****:	Lot No. Code, code change with Lot No

BRCS400P06YBQ

Rev.A Aug.-2024