

/ Descriptions

PDFN3×3A-8L P MOS

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

/ Features $V_{DS} (V) = -60V$ $I_D = -23A$ ($V_{GS} = \pm 20V$) $R_{DS(ON)} @ -10V \leq 40m\Omega$ (Typ.36m Ω) $R_{DS(ON)} @ -4.5V \leq 50m\Omega$ (Typ.44m Ω)

AEC-Q101

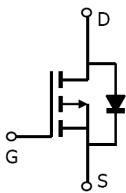
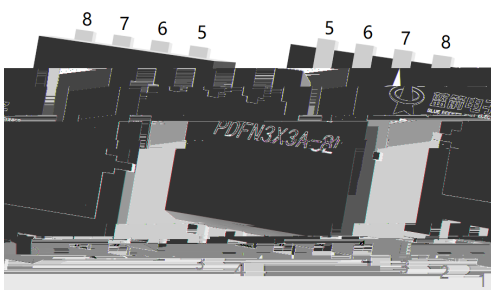
Qualified to AEC-Q101 Standards for High Reliability,

HF Product.

/ Applications

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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
3	D
4	S
5	S
6	S
7	S
8	S

/ Marking

See Marking Instructions.

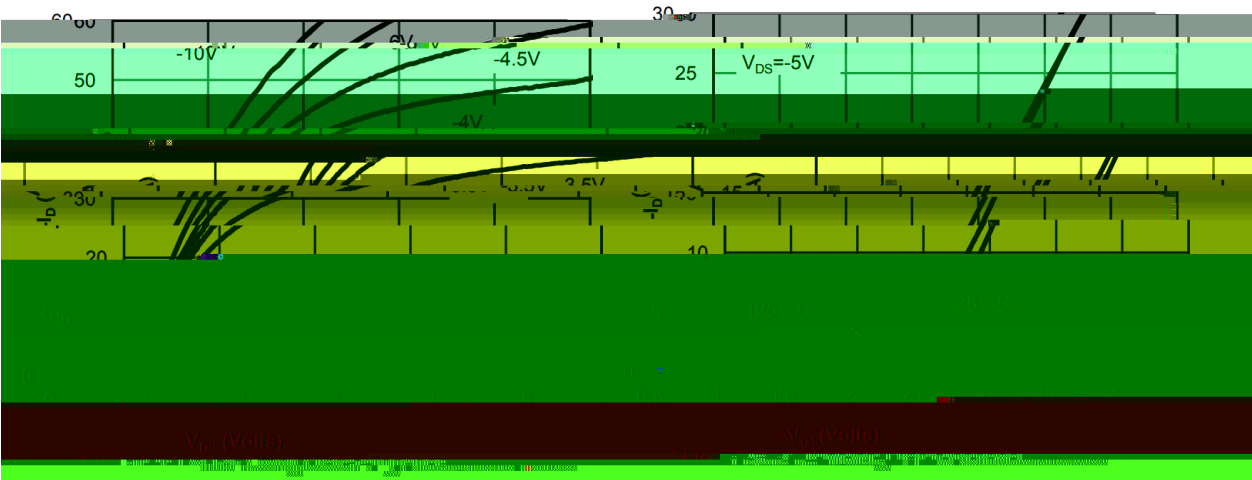
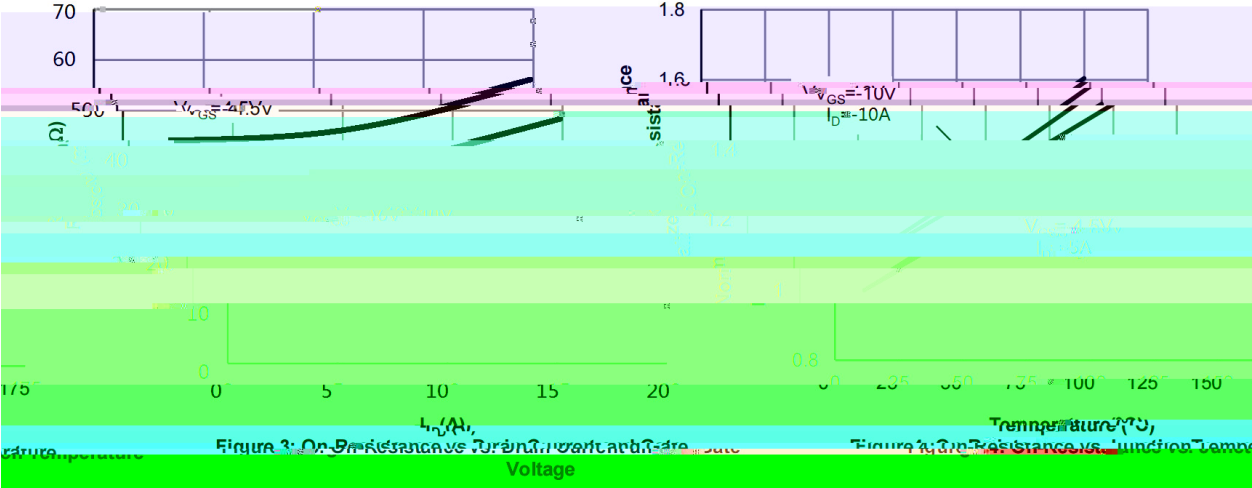
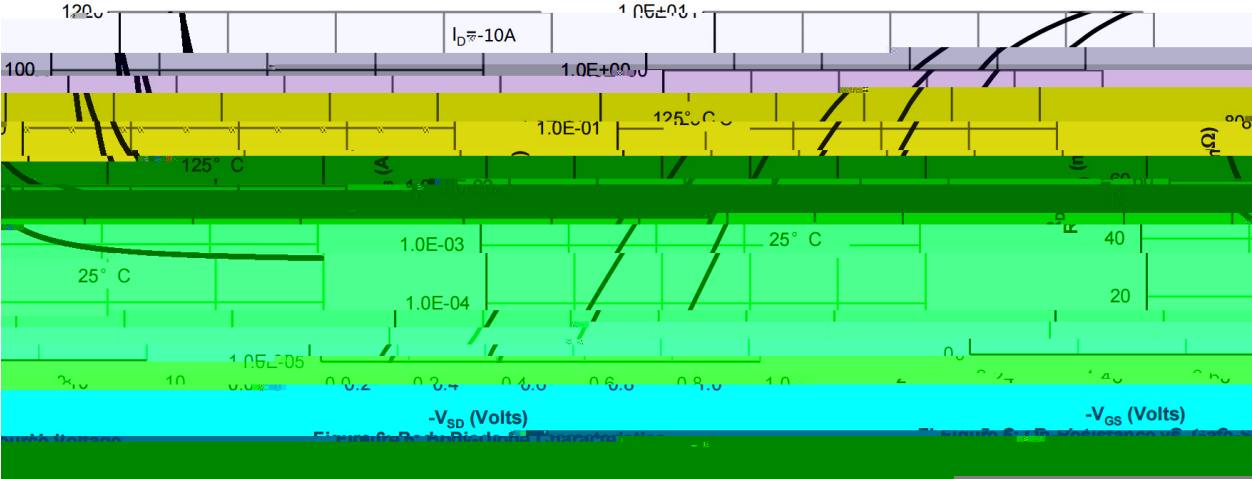
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-60	V
Gate-Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current	$I_D (T_c=25^{\circ}C)$	-23	A
Pulsed Drain Current	I_{DM}	-73	A
Avalanche Current	I_{AS}	17.5	A
Avalanche energy L=0.5mH	E_{AS}	320	mJ
Power Dissipation for Single Operation	$P_D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

Maximum Junction Temperature 55.62 1.6921 0 TD0 Tc01075Tj/T002 Tc.0025 Tw(T)Tm-.4720e480043 T604 Tm0 T

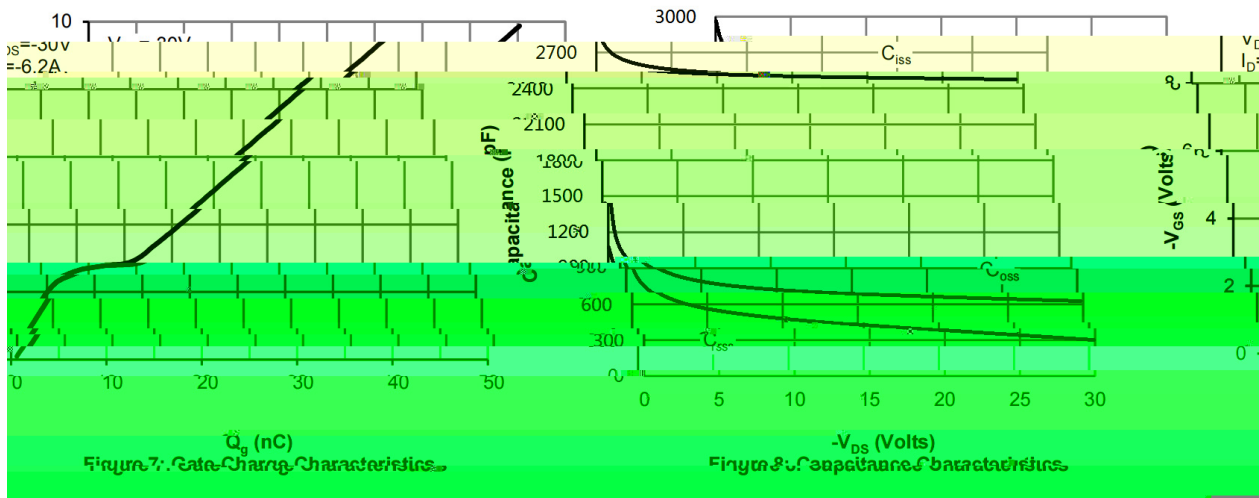
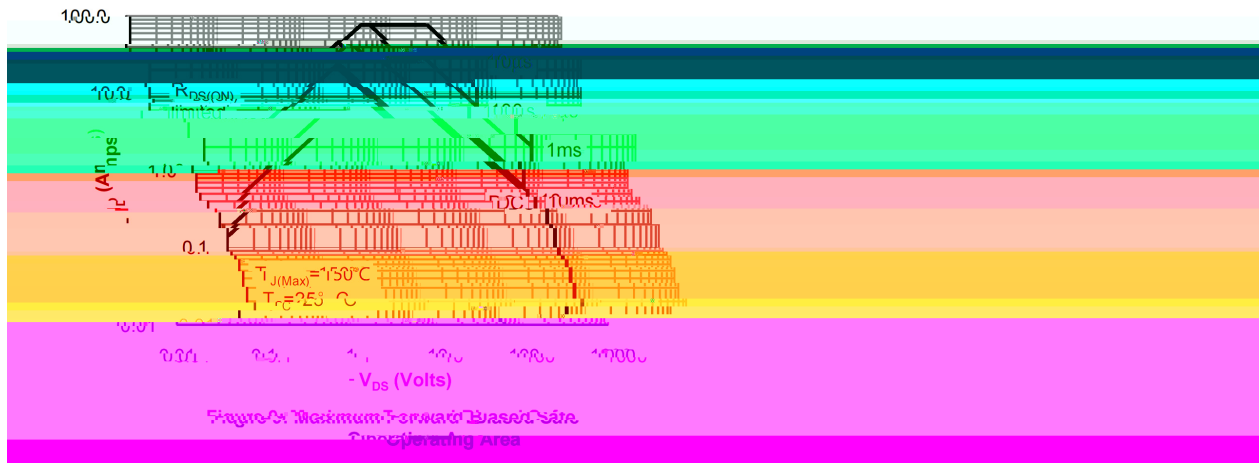
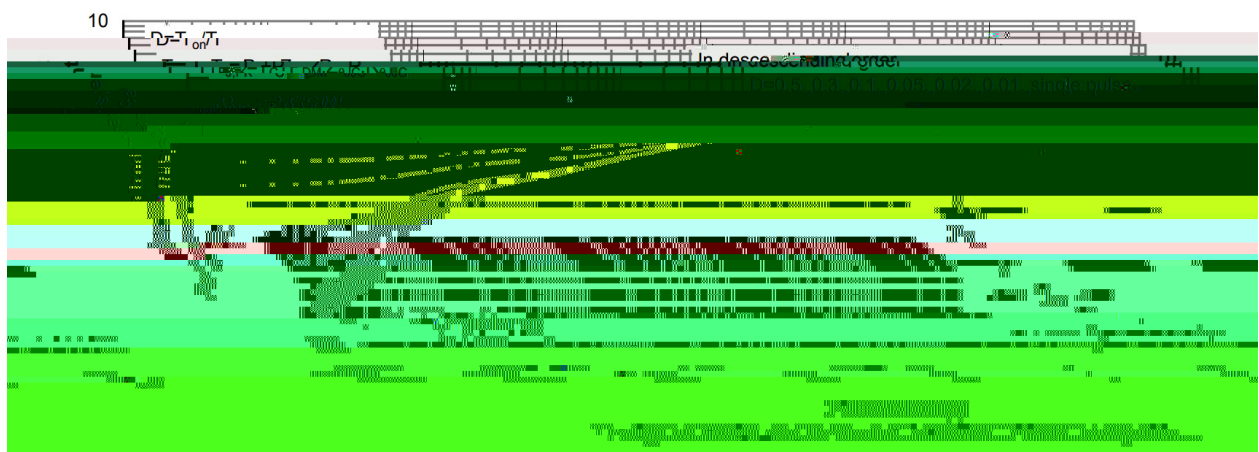
/ Electrical Characteristics(Ta=25)

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	$t_{d(ON)}$	$V_{GS}=-10V$ $V_{DS}=-30V$ $R_L=4.7\Omega$ $R_{GEN}=3\Omega$		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



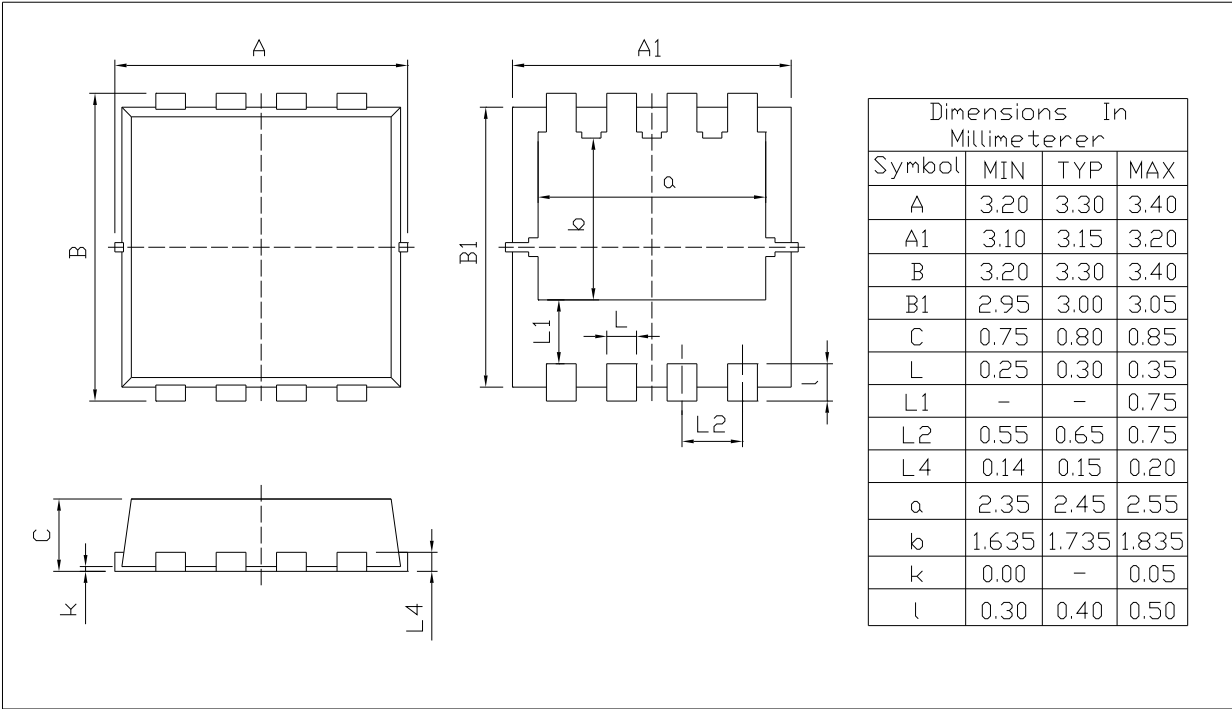
/ Electrical Characteristic Curve



/ Package Dimensions

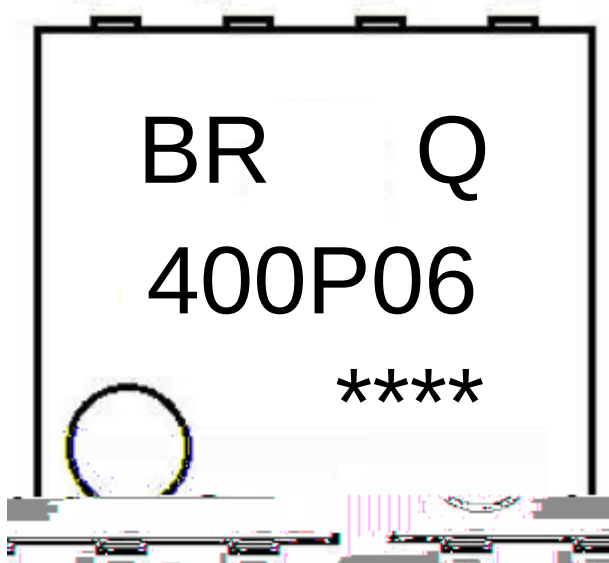
PDFN3X3A-8L

Unit:mm



Rev.00 202011

/ Marking Instructions



BR

Q

400P06

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