PDFN 3×3A-8L N MOS

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

V_{DS} (V) = 30V

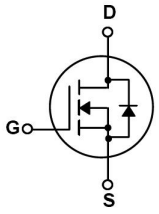
I_D =40 A (V_{GS} = ±20V)

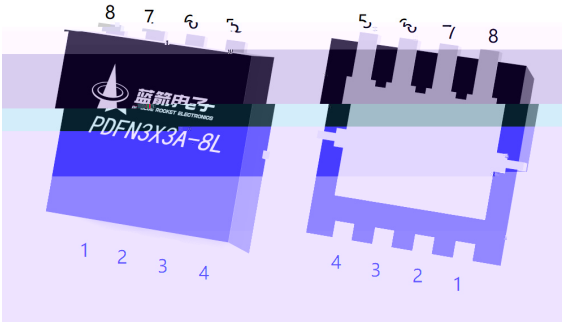
$R_{DS(ON)}$@10V ≤ 6mR(Typ.4.7mR)

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

DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies, Meet the stringent requirements of automotive applications.

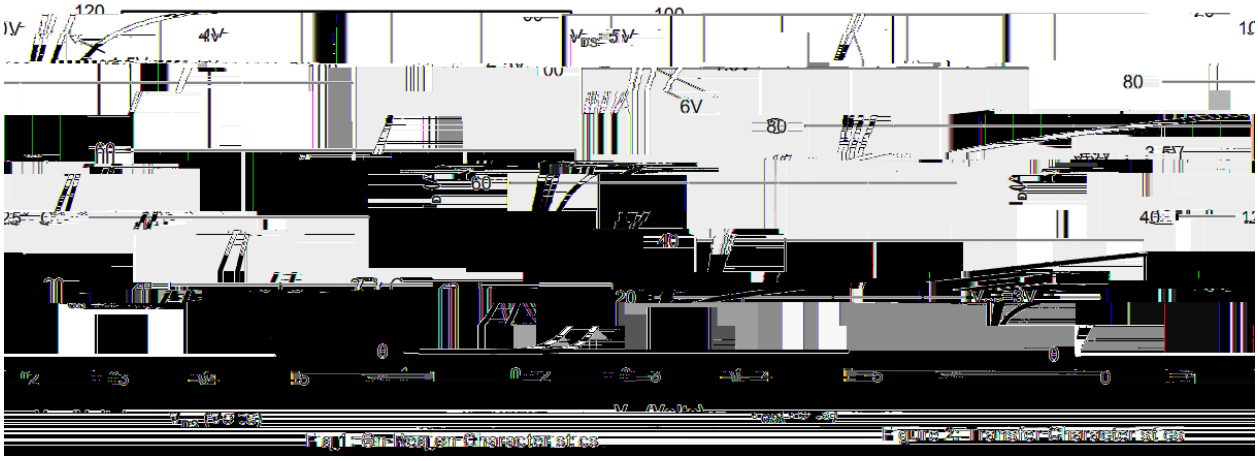


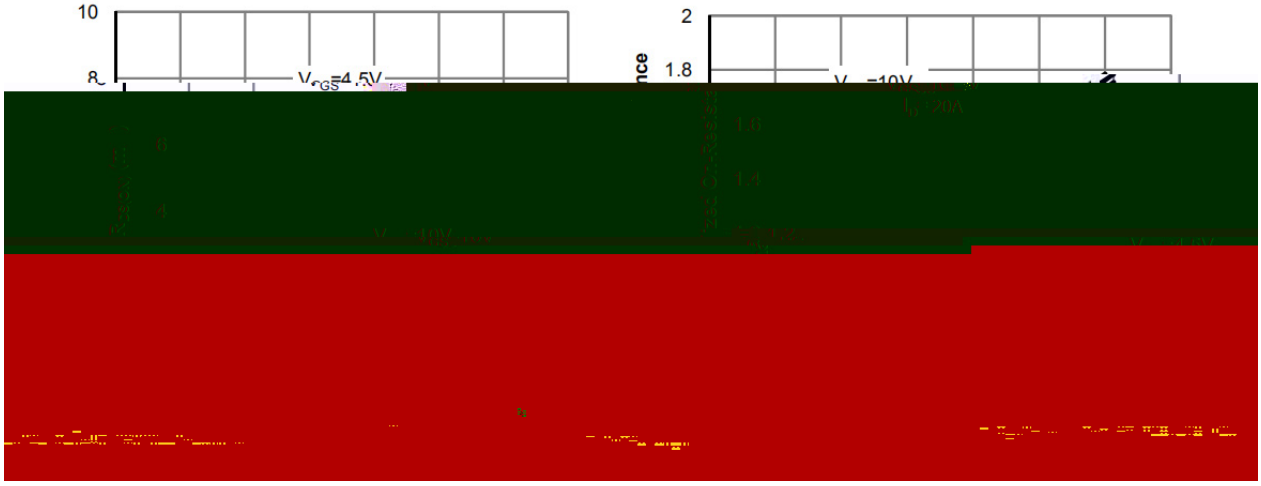


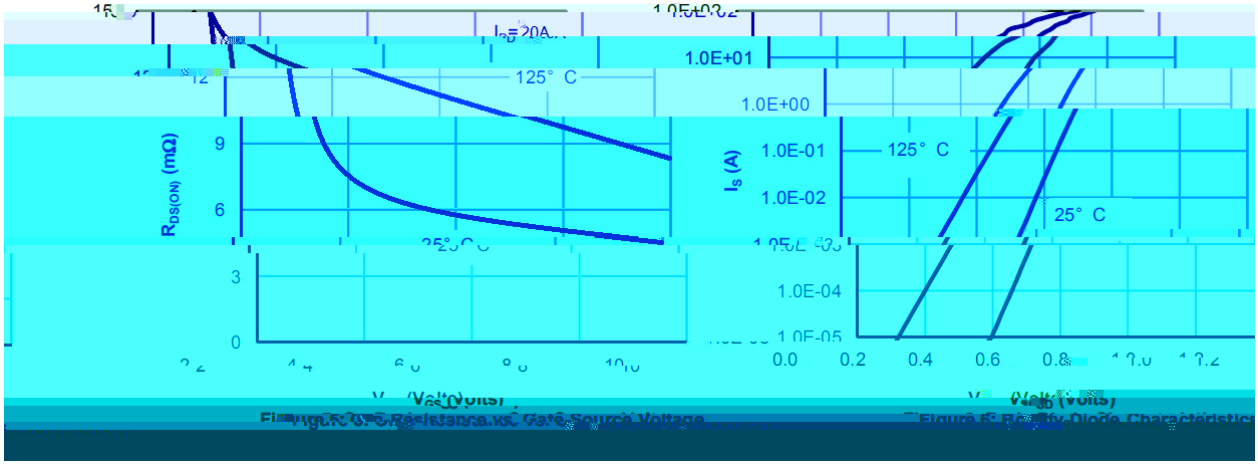
See Marking Instructions.

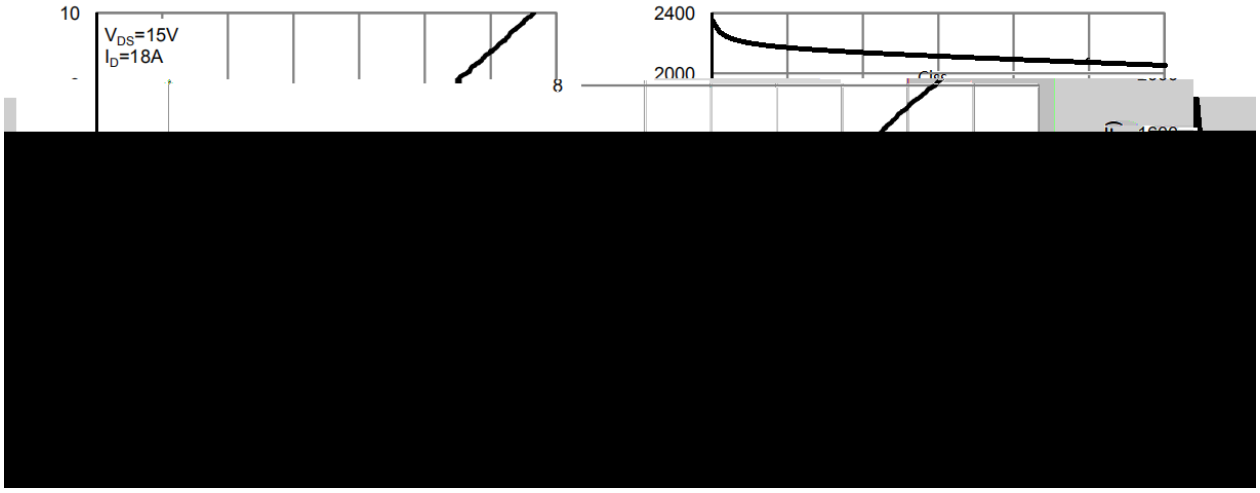
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	30	V
Drain Current		I_D(Tc=25)	40	A
Drain Current - Pulsed		I_{DM}	130	A
Gate-Source Voltage		V_{GSS}	±20	V
Single Pulsed Avalanche Energy		E_{AS}	211	mJ
Avalanche Current		I_{AS}	23	A
Power Dissipation		P_D(Tc=25)	29	W
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to 150	
Junction-to-Ambient	t ≤ 10	R_{JA}	40	/W
Junction-to-Ambient	Steady-State		75	
Junction-to-Case	Steady-State	R_{JC}	4.2	

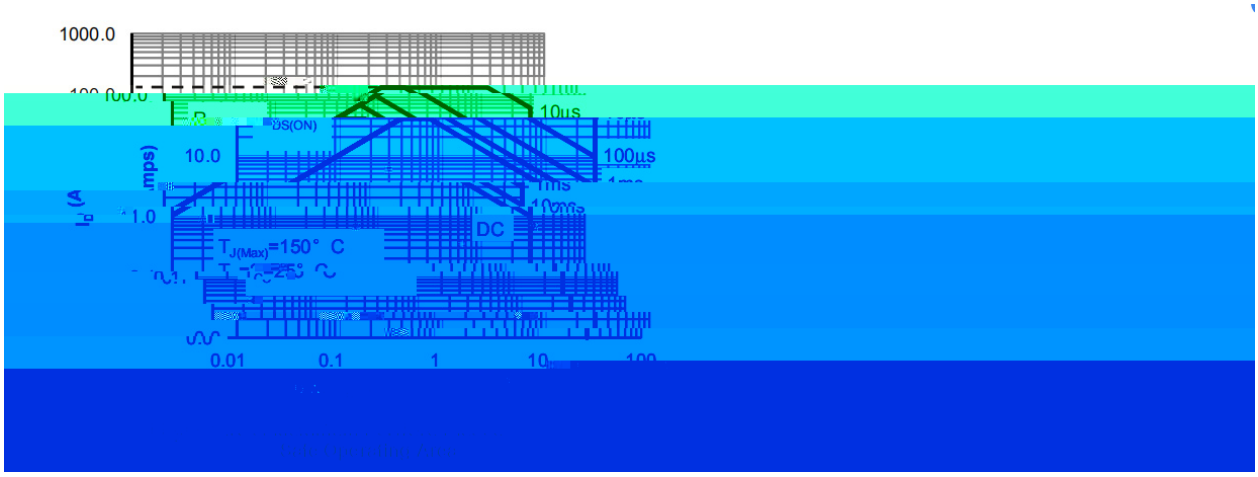
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit

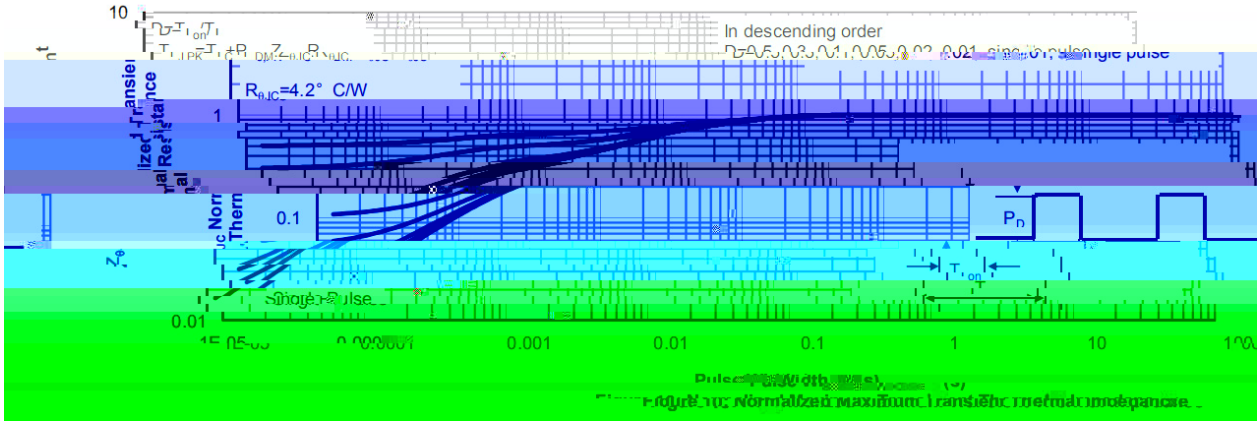

4V
6V
80
60
40
20
0


10
8
2
1.8
1.6
1.4


125° C
25° C
9
6
3
0
1.0E+01
1.0E+00
1.0E-01
1.0E-02
1.0E-04
0.0
0.2
0.4
0.6
0.8

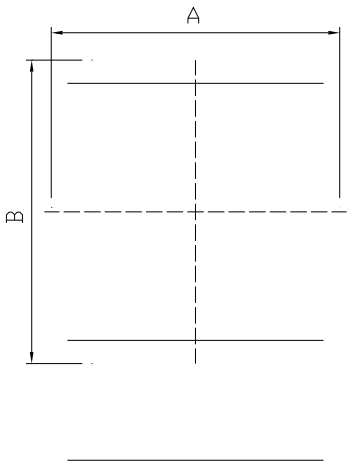

10
V_{DS}=15V
I_D=18A
8
2400
2000
Ciss


1000.0
10µs
100µs
1ms
10.0
1.0
DC
$T_{J(Max)}$=150° C
0.01
0.1
1
10


10
In descending order
$R_{\theta JC}$=4.2° C/W
1
0.1
P_D
T_{on}
Single Pulse
0.01
0.001
0.01
0.1
1
10

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		
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

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.	

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

/ REEL

Package Type	Units	Dimension	(unit mm³)