PDFN5×6 N

N-Channel MOSFET in a PDFN5×6 Plastic Package.

V_{DS}(V)=30 V I_D=124A

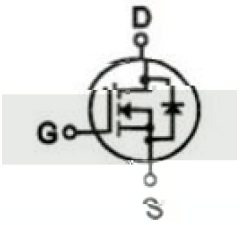
$R_{DS(ON)}$@10V 2.5m (Typ.1.4mR)

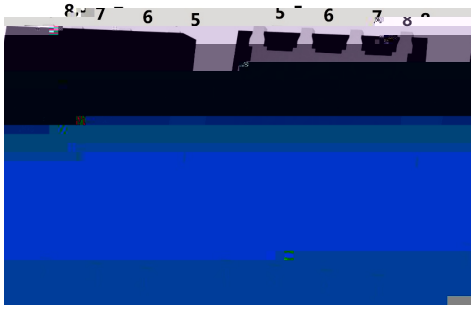
$R_{DS(ON)}$@4.5V 4.0m (Typ.2.5mR)

HF Product.

MB/NB/UMPC/VGA Buck -

Battery Management,High Frequency Point-of-Load Synchronous Buck Conventer for MB/NB/UMPC/VGA,Networking DC-DC Power System,Load Switch.





PIN1 2 3 S PIN4 G PIN5 6 7 8 D

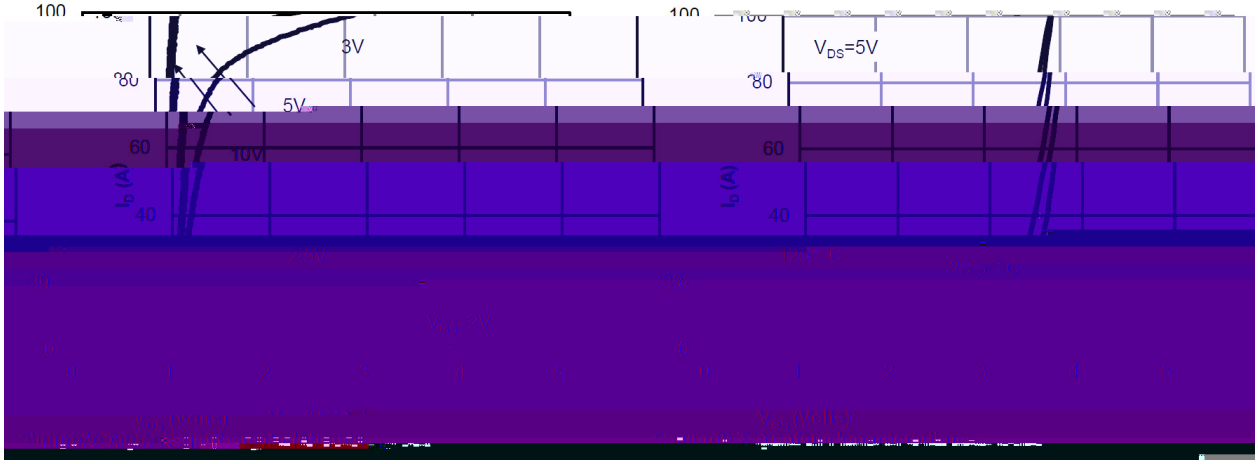
See Marking Instructions.

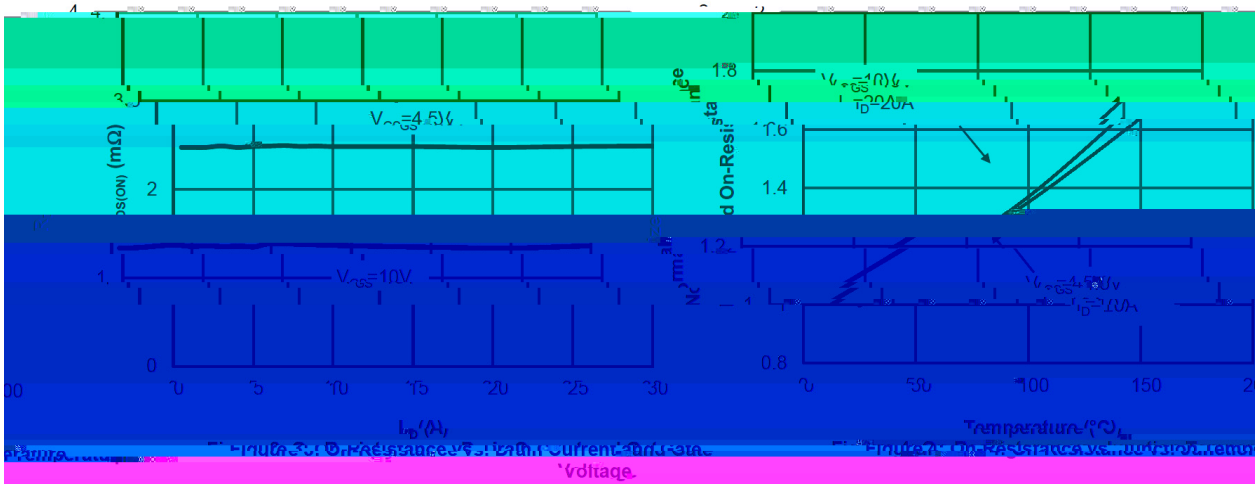
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Continuous Drain Current	I_D(T_c=25)	124	A
Pulsed Drain Current	I_{DM}	248	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	P_D(T_c=25)	65	W
Avalanche energy(L=0.5mH)	E_{AS}	810	mJ
Avalanche Current(L=0.5mH)	I_{AS}	46.5	A
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150	
Maximum Junction-to-Ambient	$R_{\theta JA}$	50	/ W
Maximum Junction-to-Case	$R_{\theta JC}$	1.92	

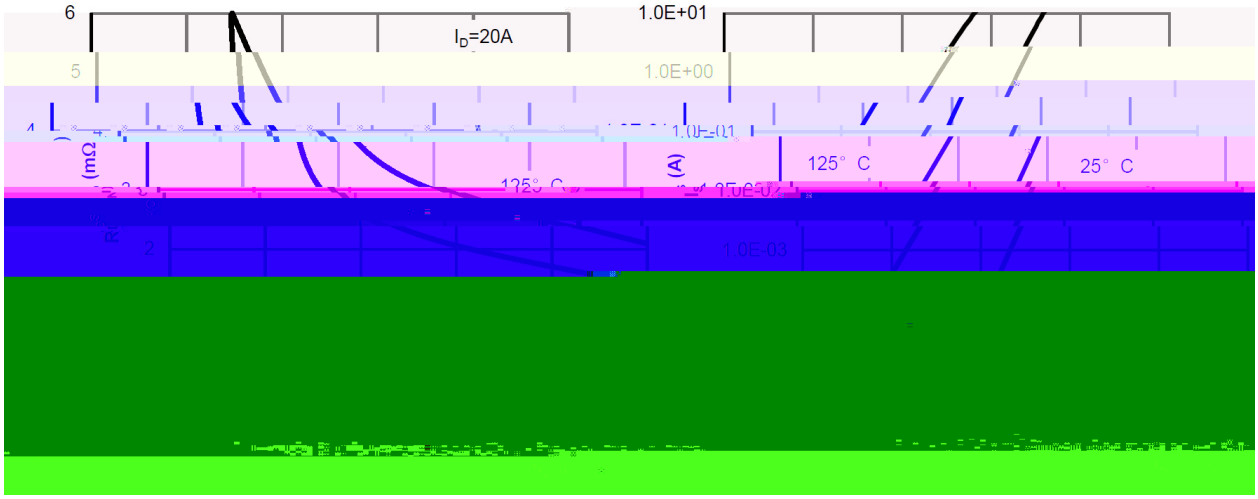
i z

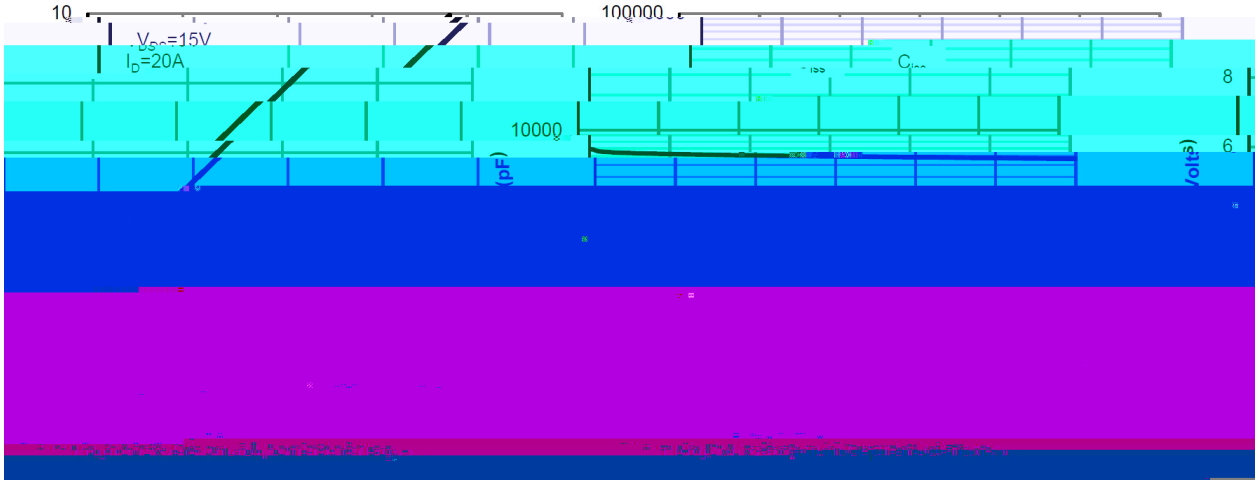
Parameter Symbol Test Conditions Min Unit AS

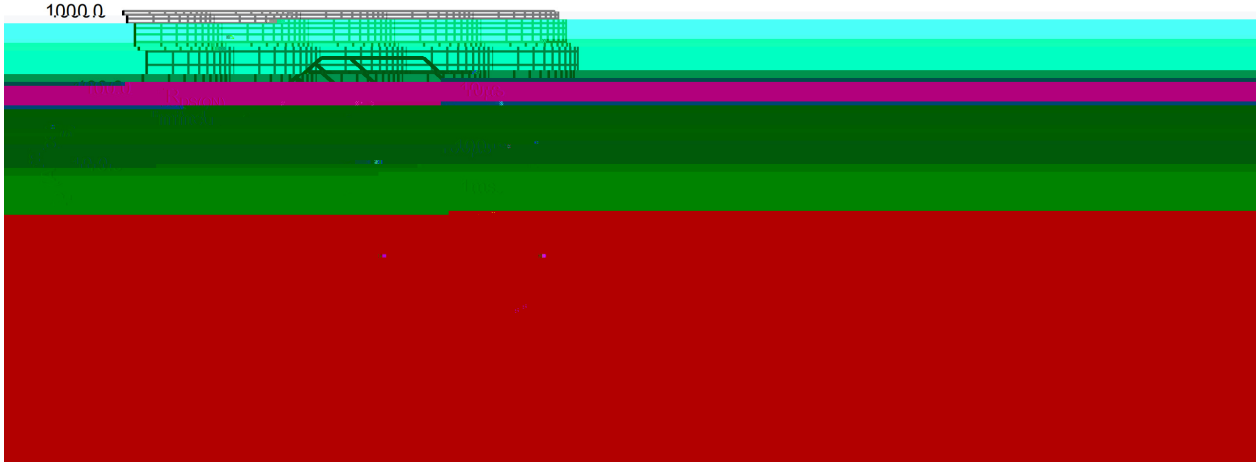
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=15V I_D=20A		115.2		nC
Total Gate Charge	$Q_{g(4.5V)}$			55.3		
Gate Source Charge	Q_{gs}			11.0		
Gate Drain Charge	Q_{gd}			23.6		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=15V I_D=20A R_G=3		17.2		ns
Turn-On Rise Time	t_r			53.3		
Turn-Off Delay Time	$t_{d(off)}$			80.9		
Turn-Off Fall Time	t_f			35.3		

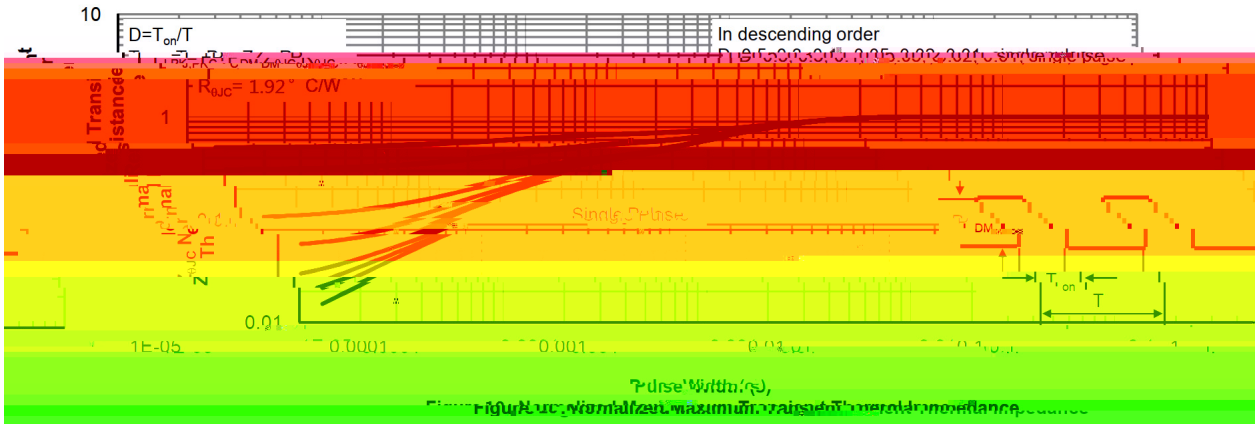

100
80
60
40
3V
5V
10V
I_D (A)
V_{DS}=5V

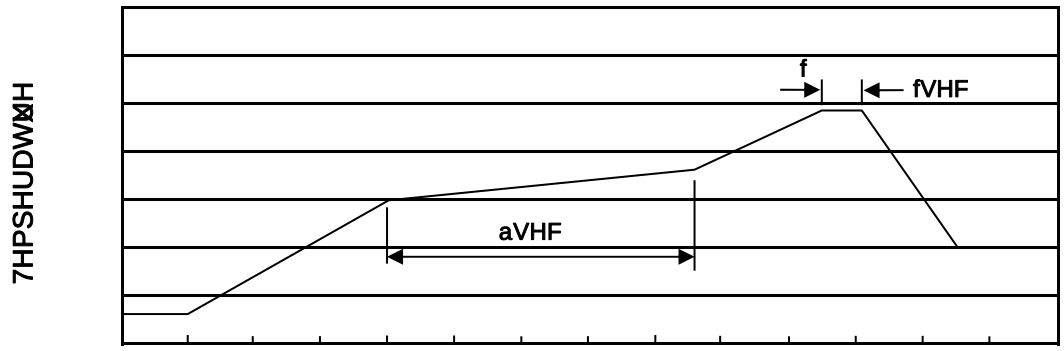

V_{GS}=4.5V
V_{GS}=10V
I_D=20A
1.8
1.6
1.4
1.2
1
0.8
0
5
10
15
20
25
30
50
100
150


6
5
I_D=20A
1.0E+01
1.0E+00
1.0E-01
1.0E-03
125° C
25° C
(A)


10
100000
V_{DS}=15V
I_D=20A
10000
(pF)
8
6
Volts)


10000


10
D=T_{on}/T
In descending order
$R_{\theta JC}$= 1.92° C/W
1
0.01
1E-05
0.0001
0.001
0.01
0.1
1
T_{on}
T



7LPHVHF

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

/ REEL

Package Type	Units ;>û ¦H					Dimension ;>û p . (unit ÆEmm³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
PDFN5×6	5,000	2	10,000	6	60,000	13''×12	360×360×50	380×335×366

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