

/ Descriptions

PDFN5×6 N

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

/ Features

 $V_{DS}(V)=30\text{ V}$ $I_D=124\text{ A}$ $R_{DS(ON)}@10\text{ V } 2.5\text{ m}$ (Typ.1.4mR) $R_{DS(ON)}@4.5\text{ V } 4.0\text{ m}$ (Typ.2.5mR)

HF Product.

/ Applications

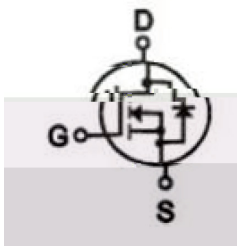
MB/NB/UMPC/VGA

Buck

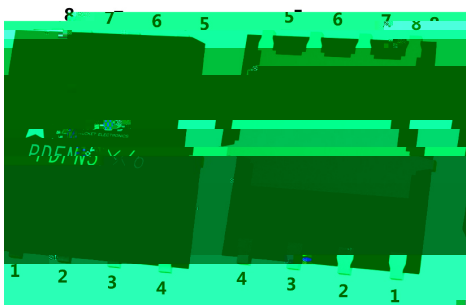
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Battery Management,High Frequency Point-of-Load Synchronous Buck Converter for MB/NB/UMPC/VGA,Networking DC-DC Power System,Load Switch.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

/ Marking

See Marking Instructions.

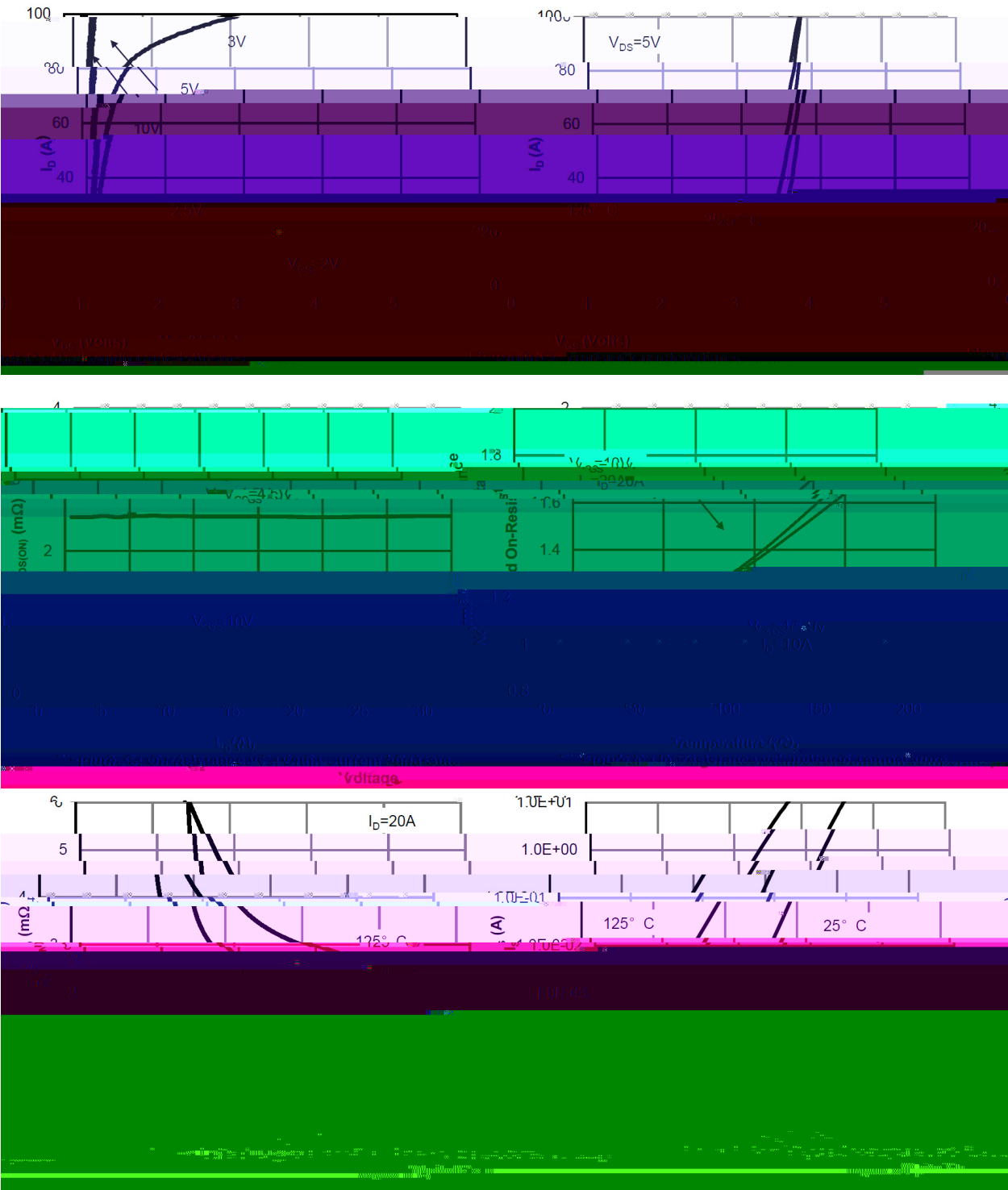
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Continuous Drain Current	$I_D(T_c=25\text{ }^{\circ}\text{C})$	124	A
Pulsed Drain Current	I_{DM}	248	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(T_c=25\text{ }^{\circ}\text{C})$	65	W
Avalanche energy(L=0.5mH)	E_{AS}	810	mJ
Avalanche 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

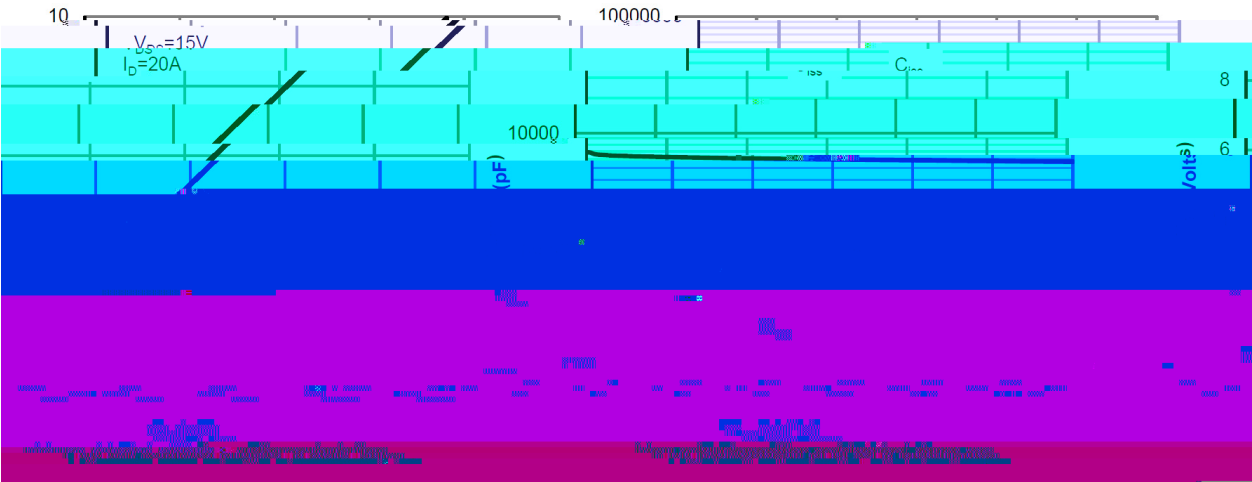
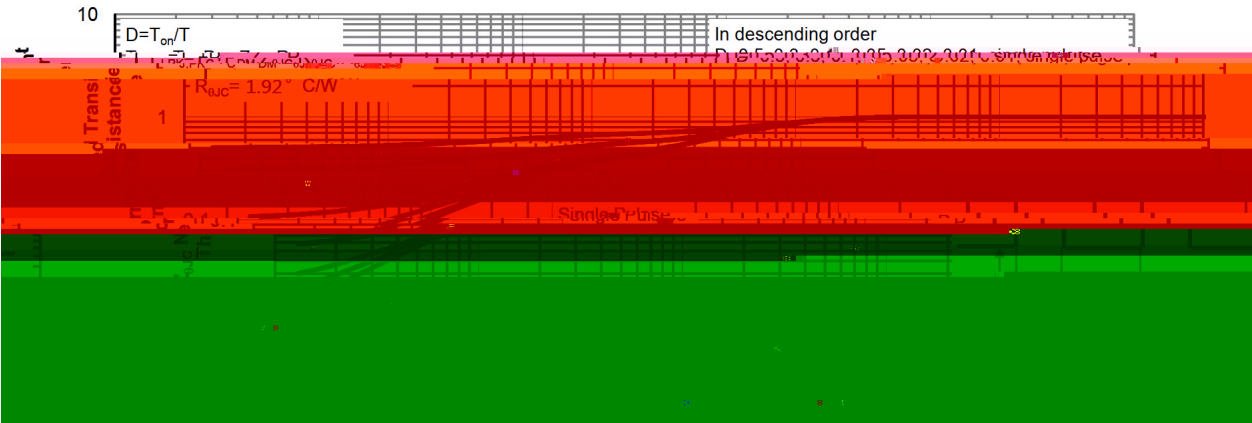
/ Electrical Characteristics(Ta=25)

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		

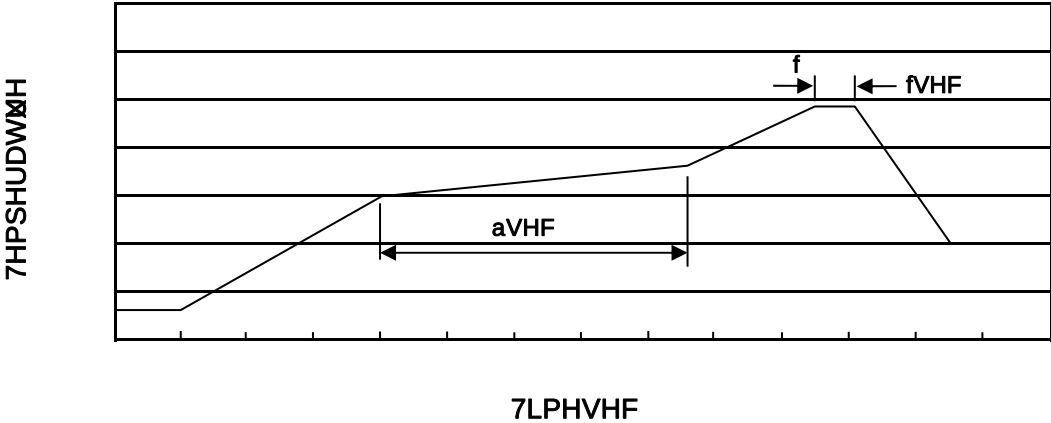
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



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- Note:
- 1.Preheating:150~180 , Time:60~90sec.
 - 2.Peak Temp.:245±5 , Duration:5±0.5sec.
 - 3. Cooling Speed: 2~10 /sec.

- 1 150 180 60 90sec;
- 2 245±5 5±0.5sec;
- 3 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 ;>û H					Dimension ;>û p . (unit /mm³)		
	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

/ Notices

All information provided in this document is subject to legal disclaimers.