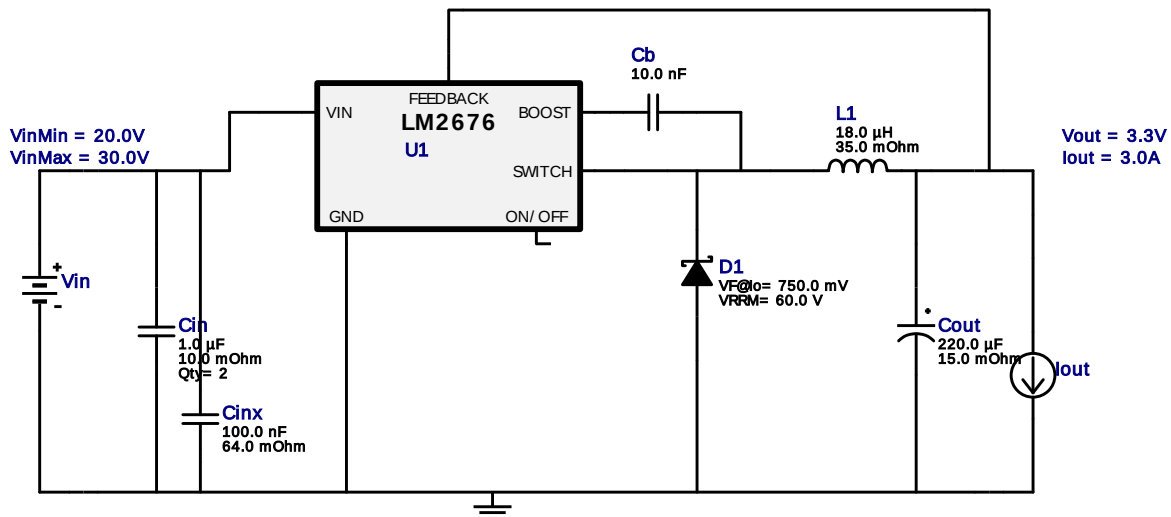
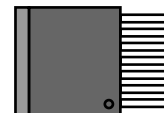




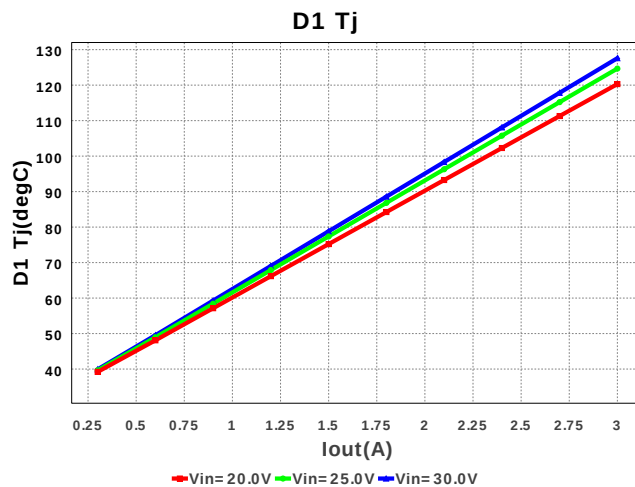
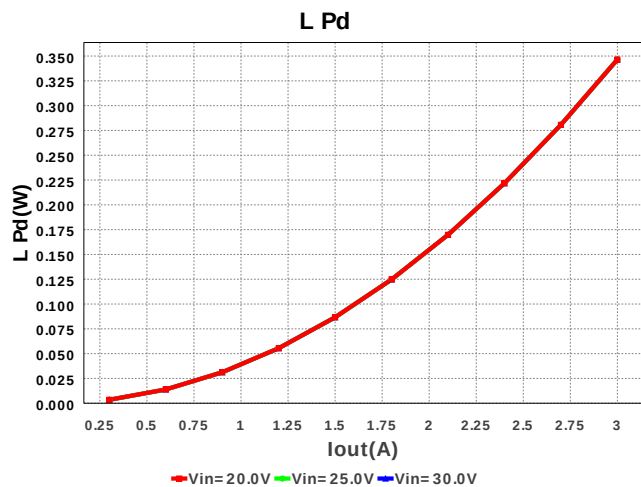
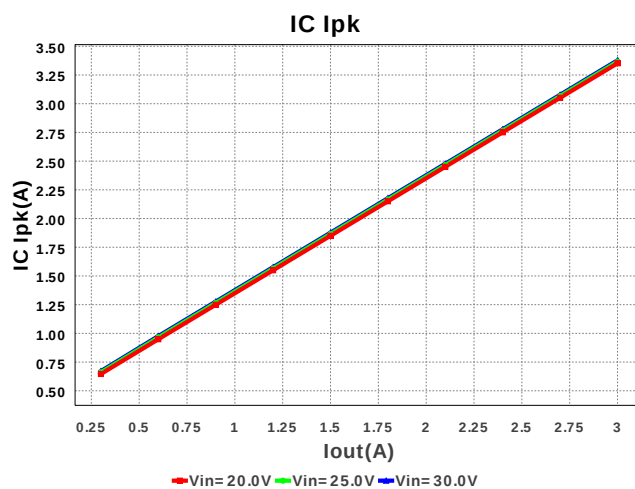
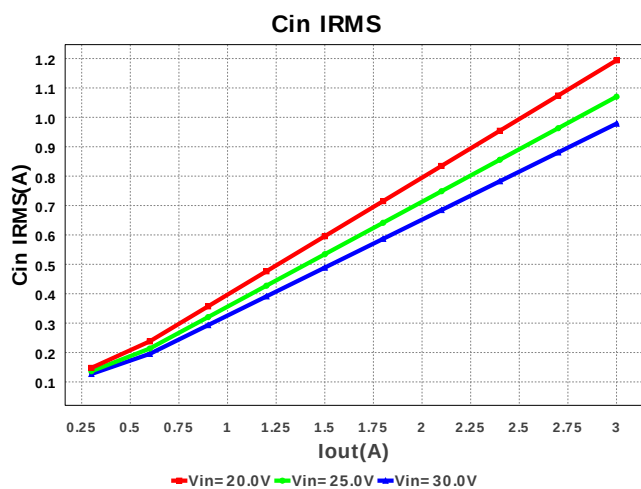
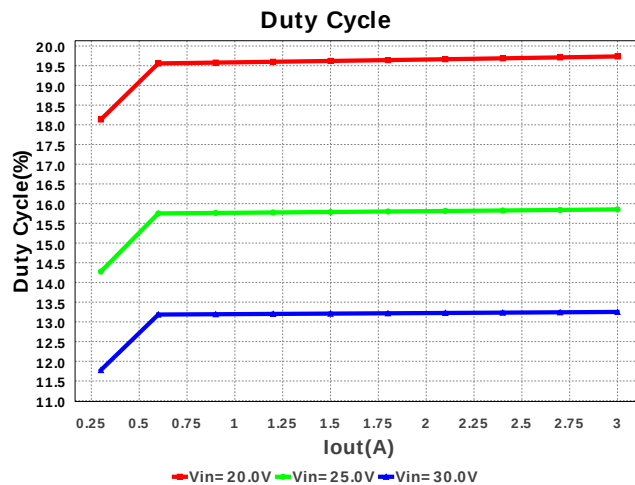
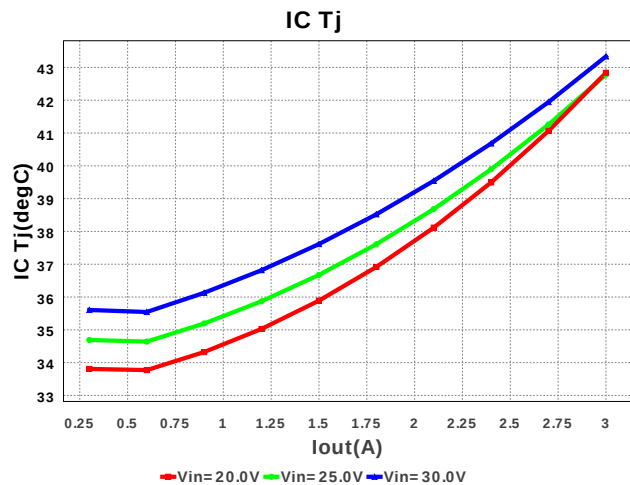
电气材料清单

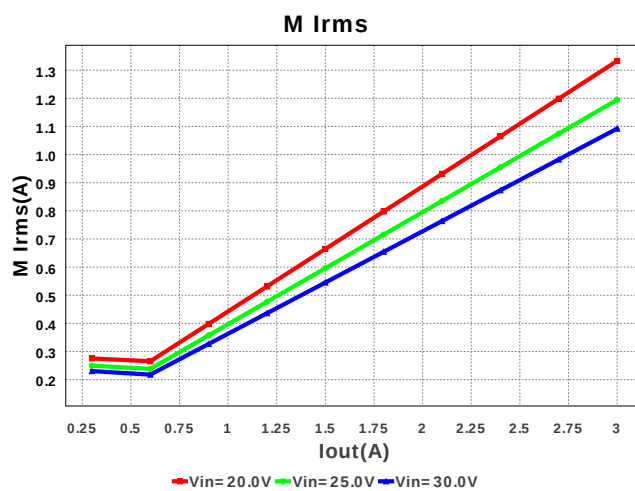
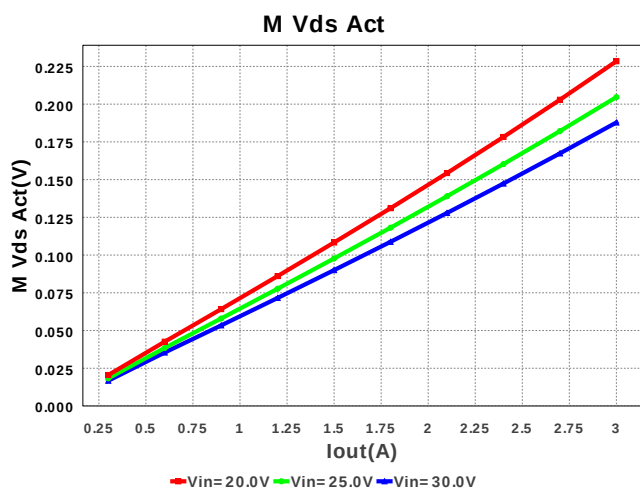
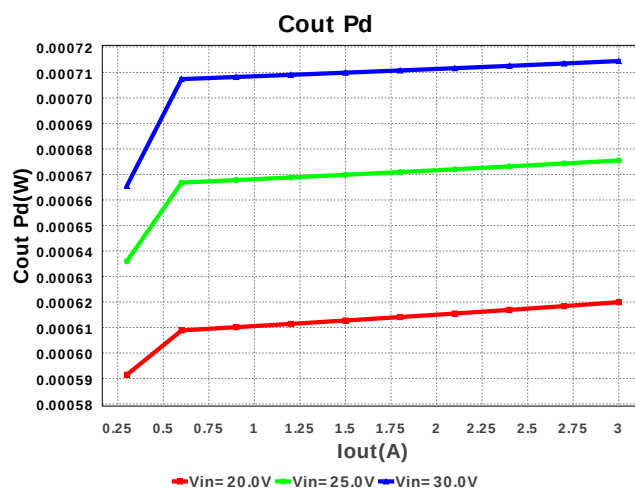
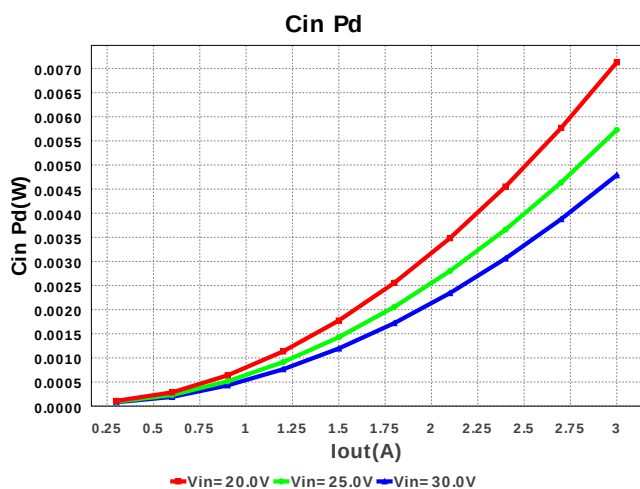
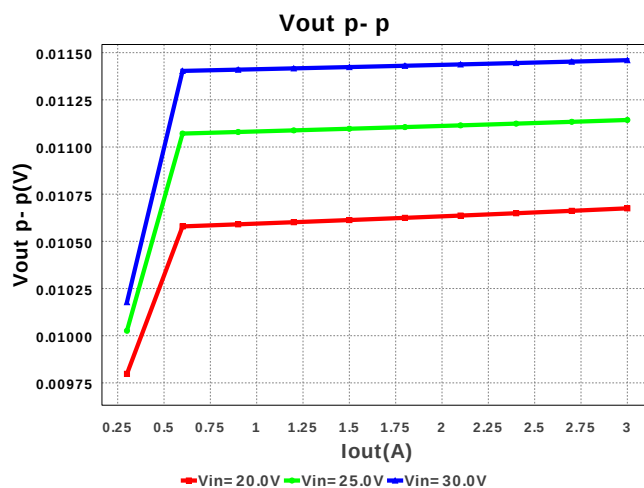
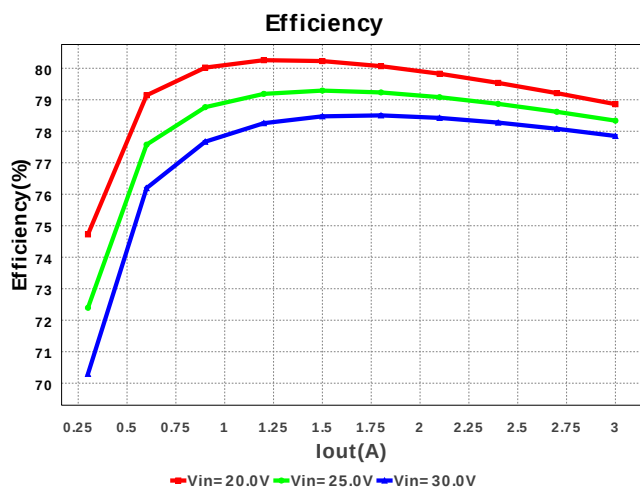
#	名称	制造商	零件编号	属性	Qty	Price	大小
1.	Cb	MuRata	GRM216R71H103KA01D Series= X7R	Cap= 10.0 nF VDC= 50.0 V IRMS= 0.0 A	1	\$0.01	 0805 7mm2
2.	Cin	TDK	C3216X7R1H105K Series= X7R	Cap= 1.0 µF ESR= 10.0 mOhm VDC= 50.0 V IRMS= 3.2 A	2	\$0.04	 1206 11mm2
3.	Cinx	Kemet	C0805C104K5RACTU Series= X7R	Cap= 100.0 nF ESR= 64.0 mOhm VDC= 50.0 V IRMS= 1.64 A	1	\$0.01	 0805 7mm2
4.	Cout	Nippon Chemi-Con	APXE6R3ARA221MF61G Series= PXE	Cap= 220.0 µF ESR= 15.0 mOhm VDC= 6.3 V IRMS= 3.16 A	1	\$0.43	 CAPSMT_62_F61 74mm2
5.	D1	Comchip Technology	CDBC560-G	VF@Io= 750.0 mV VRRM= 60.0 V	1	\$0.26	 SMC 83mm2
6.	L1	Bourns	SRR1210-180M	L= 18.0 µH DCR= 35.0 mOhm	1	\$0.44	 SRR1210 196mm2

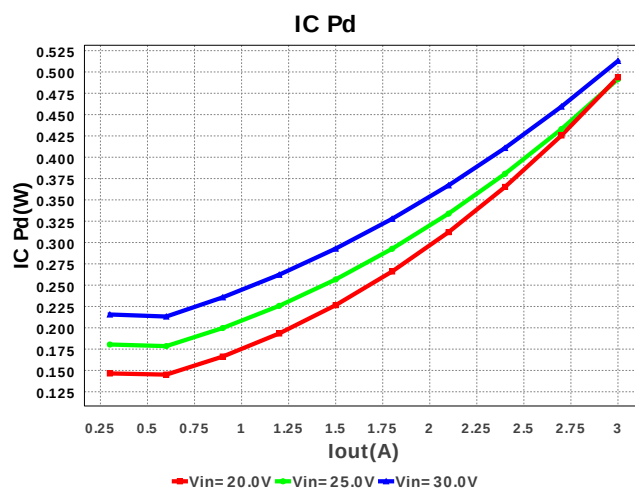
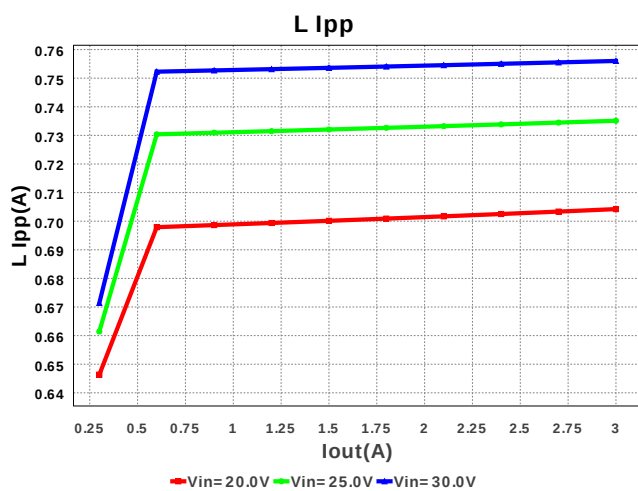
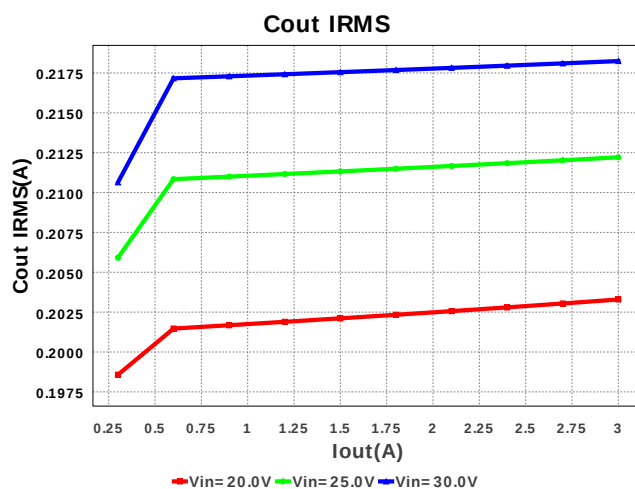
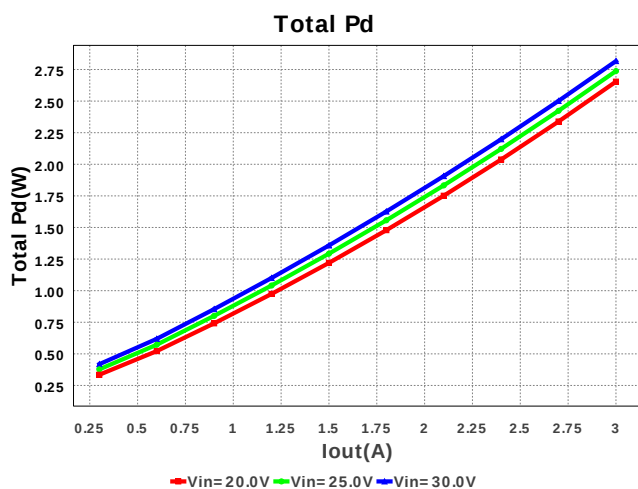
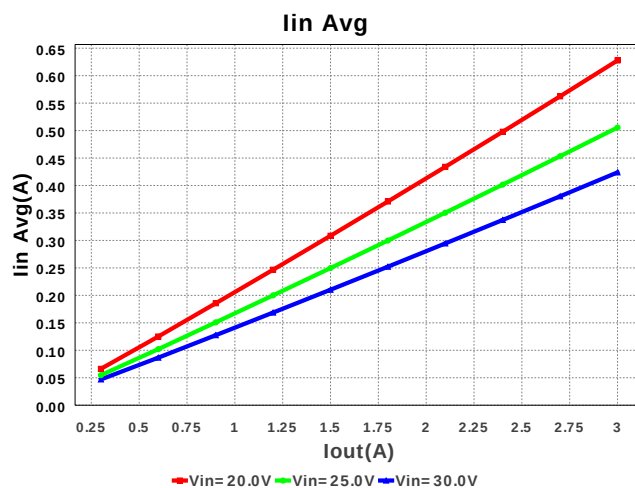
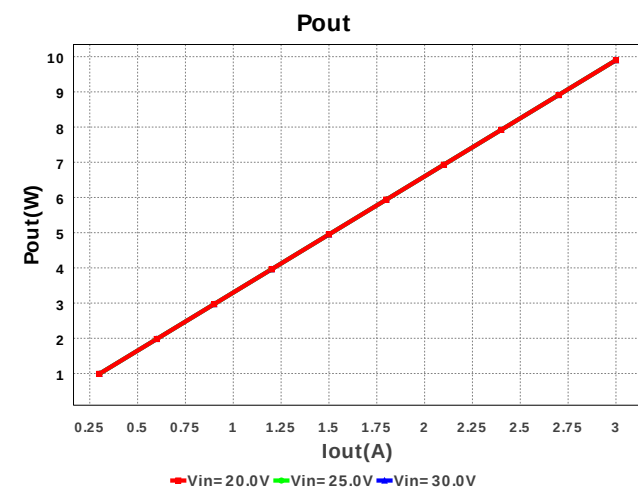
#	名称	制造商	零件编号	属性	Qty	Price	大小
7.	U1	Texas Instruments	LM2676S-3.3/NOPB	Switcher	1	\$1.80	

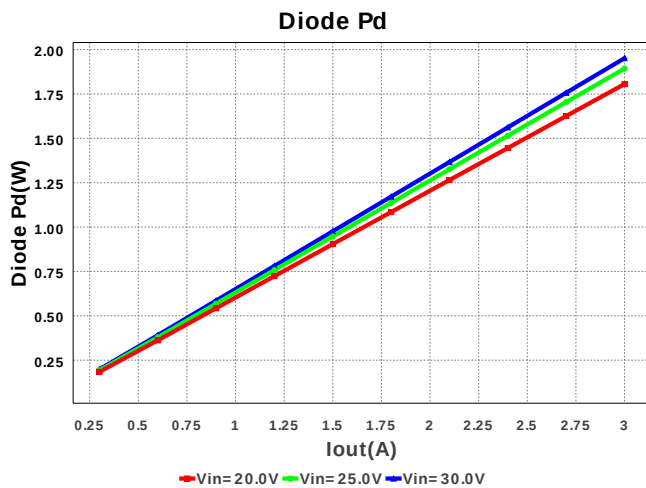


TS7B 199mm2









工作数值

#	名称	数值	类别	说明
1.	Cin IRMS	978.643 mA	Current	输入电容器均方根纹波电流
2.	Cout IRMS	218.246 mA	Current	输出电容器均方根纹波电流
3.	IC Ipk	3.378 A	Current	电路内的峰值开关电流
4.	Iin Avg	423.89 mA	Current	平均输入电流
5.	L Ipp	756.025 mA	Current	峰值到峰值电感器纹波电流
6.	M1 Irms	1.092 A	Current	Q Iavg
7.	BOM 数量	8	General	Total Design BOM count
8.	大小	615.0 mm ²	General	BOM组件的总所占面积
9.	频率	260.0 kHz	General	开关频率
10.	IC Tolerance	66.0 mV	General	IC Feedback Tolerance
11.	M Vds Act	187.842 mV	General	Voltage drop across the MosFET
12.	Pout	9.9 W	General	总输出功率
13.	总 BOM	\$3.03	General	Total BOM Cost
14.	D1 Tj	127.592 degC	Op_Point	D1接点温度
15.	Vout OP	3.3 V	Op_Point	Operational Output Voltage
16.	交叉频率	25.172 kHz	Op_point	波特图交叉频率
17.	占空比	13.252 %	Op_point	占空比
18.	效率	77.85 %	Op_point	稳态效率
19.	IC Tj	43.336 degC	Op_point	电路接点温度
20.	ICThetaJA	26.0 degC/W	Op_point	电路接点到环境热敏电阻
21.	IOUT_OP	3.0 A	Op_point	Iout 操作点
22.	相位裕度	68.297 deg	Op_point	波特图相位裕度
23.	VIN_OP	30.0 V	Op_point	Vin操作点
24.	Vout p-p	11.46 mV	Op_point	峰值到峰值输出纹波电压
25.	Cin Pd	4.789 mW	Power	输入电容器功率耗散
26.	Cout Pd	714.468 μ W	Power	输出电容器功率耗散
27.	二极管 Pd	1.952 W	Power	二极管功率耗散
28.	IC Pd	512.914 mW	Power	电路功率耗散
29.	L Pd	346.5 mW	Power	电感器功率耗散
30.	整体 Pd	2.817 W	Power	总功率耗散

设计输入

#	名称	数值	说明
1.	输出电流	3.0 A	最大输出电流
2.	Iout1	3.0 Amps	Output Current #1
3.	Vin 最大	30.0 V	最高输入电压
4.	Vin 最小	20.0 V	最低输入电压
5.	输出电压:	3.3 V	输出电压
6.	Vout1	3.3 Volt	Output Voltage #1
7.	base_pn	LM2676	美国国家半导体的产品编号
8.	源	DC	输入源类别
9.	工作环境温度	30.0 degC	环境温度

设计协助

1. LM2676 Product Folder : <http://www.ti.com/product/lm2676> : contains the data sheet and other resources.

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