


電気部品のBOM

#	名称	制造商	零件编号	数量	Price	属性	大小
1.	Cb	MuRata	GRM188R71E103KA01D Series= X7R	1	\$0.01	Cap= 10.0 nF ESR= 0.0 Ohm VDC= 25.0 V IRMS= 0.0 A	 0603 10mm2
2.	Cbyp	TDK	C1608Y5V1E104Z Series= Y5V	1	\$0.01	Cap= 100.0 nF ESR= 33.3 mOhm VDC= 25.0 V IRMS= 0.0 A	 0603 10mm2
3.	Cin	TDK	C3216X7R2A105M Series= 285	2	\$0.12	Cap= 1.0 µF ESR= 6.0 mOhm VDC= 100.0 V IRMS= 4.5 A	 1206 19mm2
4.	Cout	TDK	C3216X7R2A224K Series= X7R	1	\$0.06	Cap= 220.0 nF ESR= 13.5 mOhm VDC= 100.0 V IRMS= 1.0 A	 1206 19mm2
5.	D1	Diodes Inc.	BAS70-7-F	1	\$0.06	VF@Io= 410.0 mV VRRM= 70.0 V	 SOT-23 22mm2
6.	D_LED	Cree	XPGWHT-L1-0000-00H51	14	\$3.52	LED	 xlampxpg 30mm2
7.	L1	Bourns	SRR1260-151K	1	\$0.45	L= 150.0 µH DCR= 260.0 mOhm	 SRR1260 210mm2

#	名称	制造商	零件编号	数量	Price	属性	大小
8.	Ron	Vishay-Dale	CRCW08051M27FKEA Series= CRCW..e3	1	\$0.01	Res= 1.27 MOhm Power= 125.0 mW Tolerance= 1.0%	 0805 13mm2
9.	Rsns	Panasonic	ERJ-3RQFR68V Series= 227	1	\$0.02	Res= 680.0 mOhm Power= 100.0 mW Tolerance= 1.0%	 0603 10mm2
10.	U1	Texas Instruments	LM3404HVMA	1	\$1.50	Switcher	SOIC_NARROW-8 55mm2

動作値

#	名称	数值	类别	说明
1.	Cin IRMS	111.742 m A	Current	输入电容器均方根纹波电流
2.	Cout IRMS	39.828 m A	Current	输出电容器均方根纹波电流
3.	IC Ipk	420.86 m A	Current	电路内的峰值开关电流
4.	Iin Avg	316.08 m A	Current	平均输入电流
5.	L Ipp	137.968 m A	Current	峰值到峰值电感器纹波电流
6.	LED Iavg	332.155 m A	Current	LED 平均电流
7.	LED Ipp	30.074 m A	Current	LED 纹波电流
8.	M1 Irms	329.223 m A	Current	Q Iavg
9.	BOM 数量	24.0	General	Total Design BOM count
10.	大小	803.0 mm2	General	BOM组件的总所占面积
11.	频率	247.973 k Hz	General	开关频率
12.	IC Tolerance	6.0 m V	General	IC Feedback Tolerance
13.	M Vds Act	252.254 m V	General	
14.	模式	CCM	General	传导模式
15.	Pout	14.77 W	General	总输出功率
16.	总 BOM	\$51.64	General	Total BOM Cost
17.	D1 Tj	40.332 degC	Op_Point	D1接点温度
18.	占空比	88.48 %	Op_point	占空比
19.	效率	97.353 %	Op_point	稳态效率
20.	IC Tj	71.335 degC	Op_point	电路接点温度
21.	ICThetaJA	155.0 degC/W	Op_point	电路接点到环境热敏电阻
22.	IOUT_OP	350.0 m A	Op_point	Iout 操作点
23.	LED Rd	751.057 m Ohm	Op_point	LED 动态电阻
24.	LED Vf	42.0 V	Op_point	总 LED 正激计算电压
25.	VIN_OP	48.0 V	Op_point	Vin操作点
26.	Cin Pd	37.459 μ W	Power	输入电容器功率耗散
27.	Cout Pd	21.415 μ W	Power	输出电容器功率耗散
28.	二极管 Pd	16.531 m W	Power	二极管功率耗散
29.	IC Pd	266.678 m W	Power	电路功率耗散
30.	L Pd	35.035 m W	Power	电感器功率耗散
31.	LED Pd	14.7 W	Power	LED 功率耗散
32.	Rsense Pd	83.3 m W	Power	LED 功率耗散
33.	整体 Pd	401.599 m W	Power	总功率耗散
34.	Vout OP	42.2 V	Unknown	Operational Output Voltage

設定値

#	名称	数值	说明
1.	输出电流	350.0 mA	最大输出电流
2.	Iout1	350.0 mAmps	Output Current #1
3.	Vin 最大	48.0 V	最高输入电压
4.	Vin 最小	48.0 V	最低输入电压
5.	输出电压:	42.0 V	输出电压
6.	Vout1	42.0 Volt	Output Voltage #1
7.	应用	LED_DRIVER	LED 应用
8.	base_pn	LM3404HV	美国国家半导体的产品编号
9.	LED_Architect	N	LED Architect Project
10.	ledparallel	1.0	并联的LED数量
11.	LED 零件编号	XPGWHT- L1-0000-00H51	LED 零件编号
12.	ledseries	14.0	串联的LED数量
13.	line_fsw	60.0	交流线路频率
14.	源	DC	输入源类别
15.	工作环境温度	30.0 degC	环境温度

設計アシスタント

1. LM3404HV Product Folder : <http://www.national.com/pf/LM/LM3404HV.html> : contains the data sheet and other resources.

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