

AC/DC Converter Controller

Application Information

IC Product Name	BM2P134QF
Control Method	PWM
Input	85 Vac to 132 Vac
Output	-12.7V 0.3A
Type	Non- Isolation
Document Number	66AN136E
Revision	001

Reference Circuit

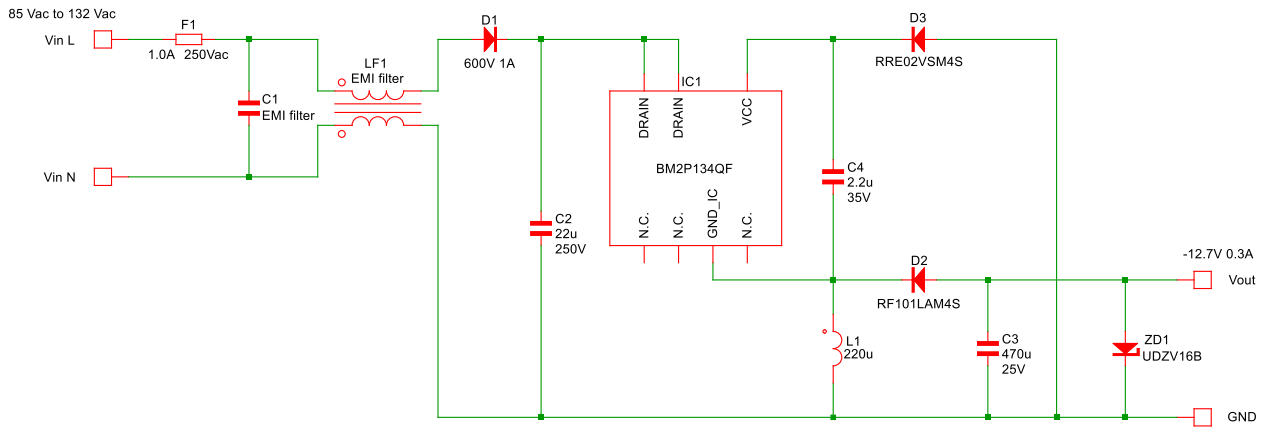


Fig1. Reference Circuit

Bill of Materials

Item	Specification	Parts name	Manufacture
IC1		BM2P134QF	Rohm
C1	EMI filter	X-Capacitor	
C2	22uF/250V		
C3	470uF/25V		
C4	2.2uF/35V		
D1	600V/1A		
D2	400V/1A	RF101LAM4S	Rohm
D3	400V/0.2A	RRE02VSM4S	Rohm
F1	1.0A/250Vac		
L1※	220uH/0.8A		
LF1	EMI filter		
ZD1	16V/0.2W	UDZV16B	Rohm

※コイルは閉磁型のものを選んでください。

Use a shield coil.

Fig2. Bill of Materials

Typical Characteristics

	85Vac	100Vac	132Vac
0A	-13.40V	-13.42V	-13.47V
0.005A	-13.12V	-13.12V	-13.12V
0.01A	-13.04V	-13.04V	-13.04V
0.1A	-12.78V	-12.78V	-12.78V
0.2A	-12.71V	-12.71V	-12.71V
0.3A	-12.67V	-12.68V	-12.68V

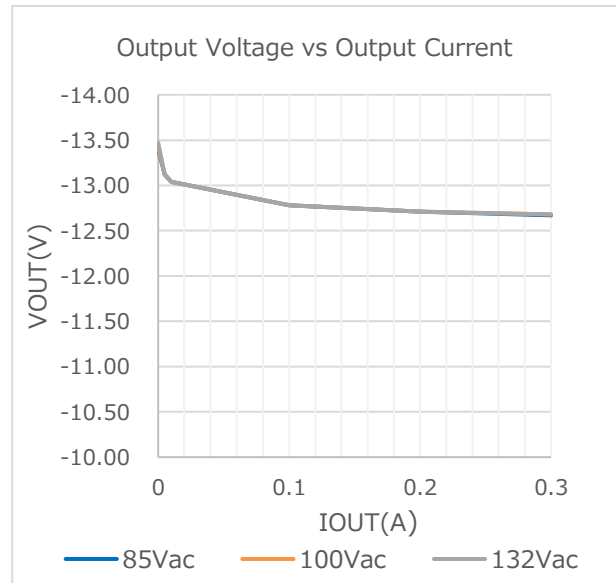


Fig3. Output Voltage vs Output Current

	85Vac	100Vac	132Vac
0.005A	52.1%	51.6%	52.5%
0.01A	57.0%	60.7%	62.4%
0.1A	80.0%	79.4%	77.8%
0.2A	82.1%	82.2%	81.2%
0.3A	80.7%	81.4%	80.8%

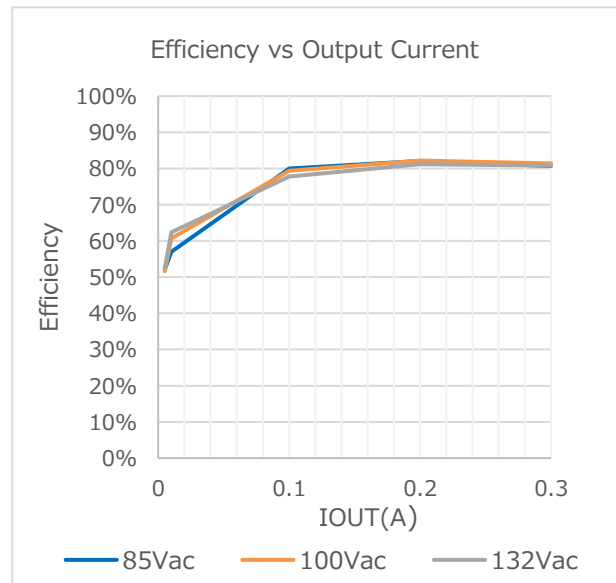


Fig4. Efficiency vs Output Current

Revision History

Date	Revision	Changes
20.Feb.2024	001	New Release

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