

**Innovations
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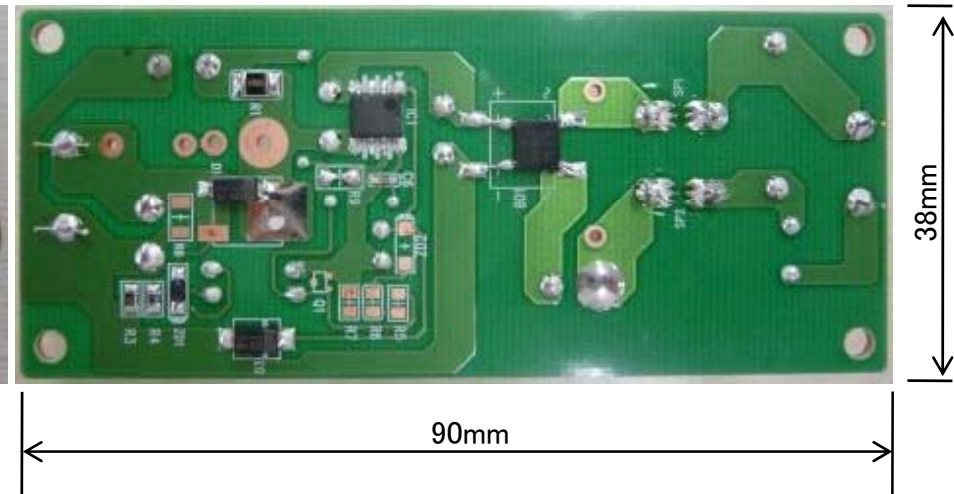
Board No:BM2P094FEVK-003

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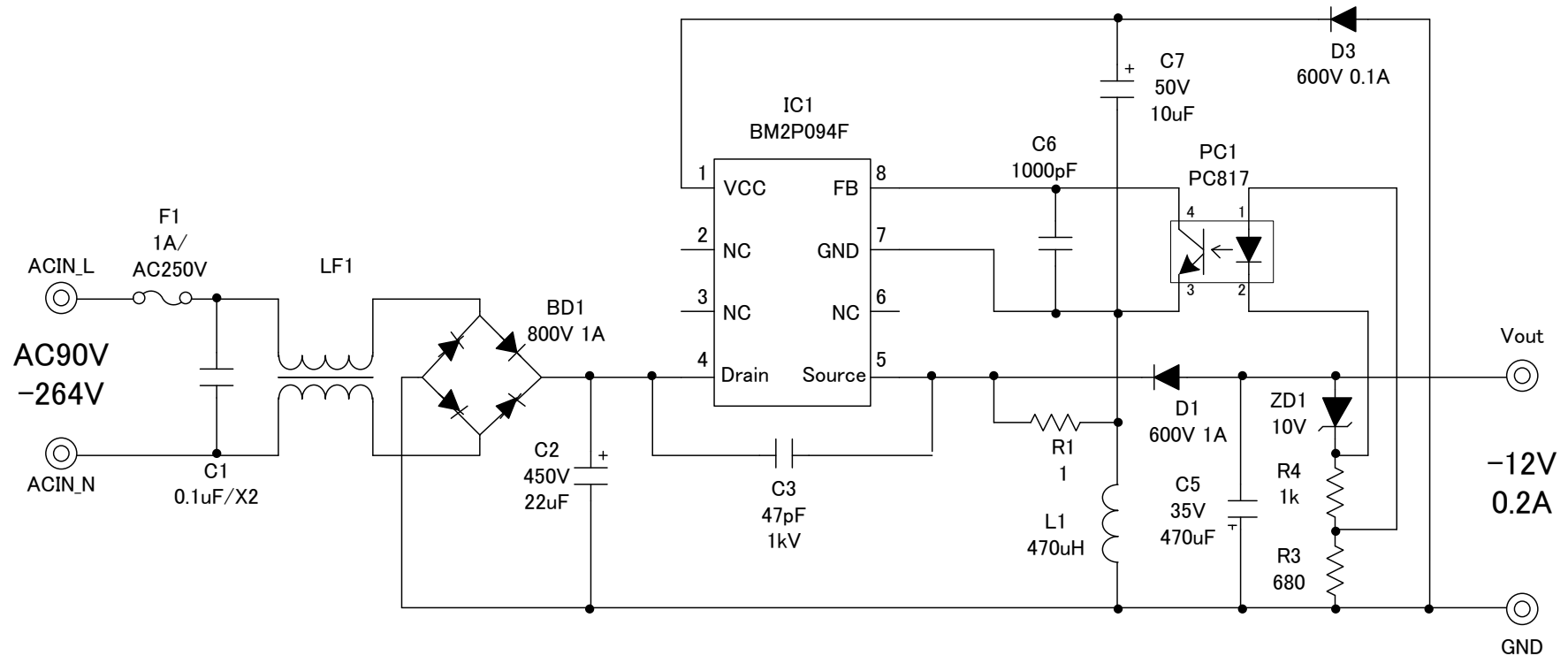
ROHM Co.,Ltd.

Reference Board Specification

Description		Symbol	Min	Typ	Max	Unit	Condition
Input	Voltage	Vin	90		264	Vac	
	Frequency	fac	47	50/60	63	Hz	
	No Load Input Power				100	mW	Vin: AC100V/230V
Output	Voltage	Vout	-12.6	-12	-11.4	V	
	Current	Iout	0.2			A	
	Ripple Voltage	Vripple			100	mV	20MHz Bandwidth
	Efficiency		75			%	Output: -12V 0.2A



Application Schematic



Component List

Item	Spec	Parts name	Maker
C1	0.1uF/X2	LE104	Okaya
C2	22uF/400V	22uF/450V	
C3	47pF/1kV	CC45SL3AD470	TDK
C5	Low-Z 470uF/35V	Low-Z 470uF/35V	
C6	1000pF/16V	1000pF/16V 1608	
C7	10uF/50V	10uF/50V	
BD1	800V/1A	D1UBA80	Shindengen
D1	FRD 600V 0.8A	RFN1L6S	Rohm
D3	600V/0.1A	1SR154-600	Rohm
ZD1	10V	UDZSTE-1710B	Rohm
F1	1A/AC250V	3691100***	Littlefuse
LF1		SU9VF-02100	NEC Tokin
L1	470uH/0.8A	744 7480 471	Würth
IC1		BM2P094F	Rohm
R1	1 Ω /0.5W	MCR25JZHF1R0	Rohm
R3	680 Ω	MCR10EZPJ681	Rohm
R4	1k Ω	MCR10EZPJ102	Rohm
PC1		PC817	

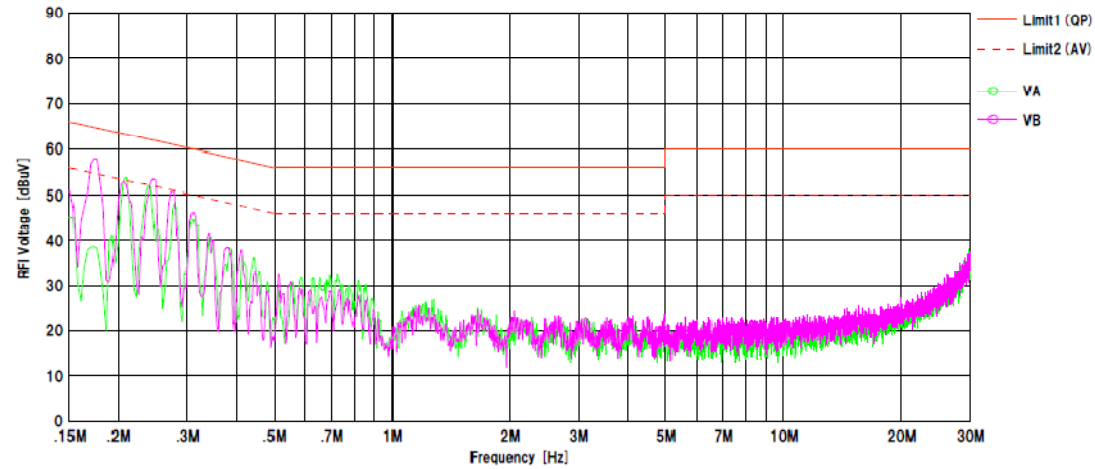
Measurement Data

Vin(V)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	η (%)
90	0.028	-11.95	0	0	-
	0.173	-11.95	0.01	0.120	69.2
	0.759	-11.95	0.05	0.598	78.7
	1.496	-11.95	0.1	1.195	79.9
	2.236	-11.93	0.15	1.790	80.1
	2.979	-11.92	0.2	2.384	80.0
100	0.030	-11.96	0	0	-
	0.175	-11.96	0.01	0.120	68.5
	0.763	-11.96	0.05	0.598	78.4
	1.501	-11.95	0.1	1.195	79.6
	2.242	-11.94	0.15	1.791	79.9
	2.962	-11.93	0.2	2.387	80.6
230	0.048	-11.96	0	0	-
	0.197	-11.96	0.01	0.120	60.7
	0.802	-11.96	0.05	0.598	74.6
	1.545	-11.96	0.1	1.196	77.4
	2.324	-11.96	0.15	1.793	77.2
	3.053	-11.95	0.2	2.391	78.3
264	0.044	-11.97	0	0	-
	0.199	-11.97	0.01	0.120	60.0
	0.809	-11.96	0.05	0.598	73.9
	1.558	-11.96	0.1	1.196	76.8
	2.314	-11.96	0.15	1.794	77.5
	3.071	-11.96	0.2	2.391	77.9

Conduction EMI

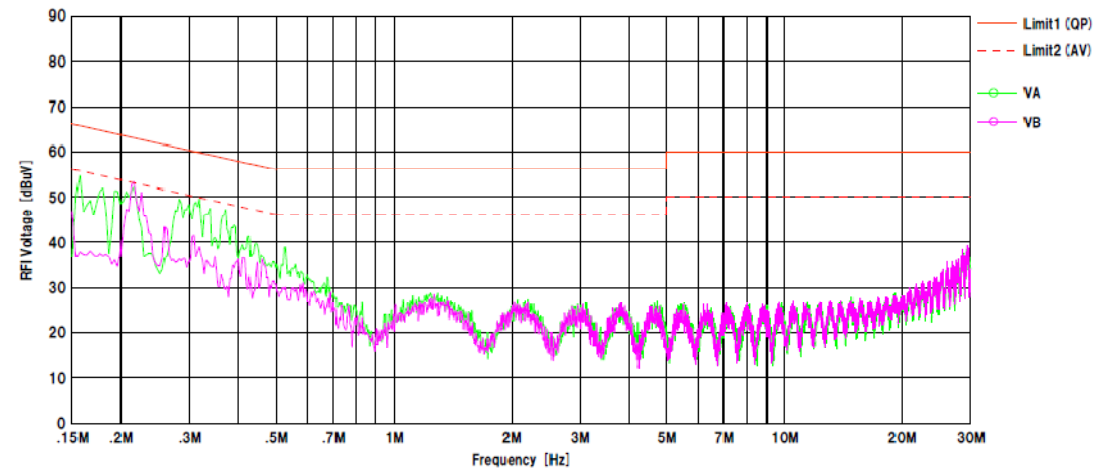
Vin: AC100V/50Hz
Vout: -12V 0.2A

Limit1 : CISPR Pub 22 Class B
Limit2 : CISPR Pub 22 Class B (AV)



Vin: AC230V/50Hz
Vout: -12V 0.2A

Limit1 : CISPR Pub 22 Class B
Limit2 : CISPR Pub 22 Class B (AV)



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