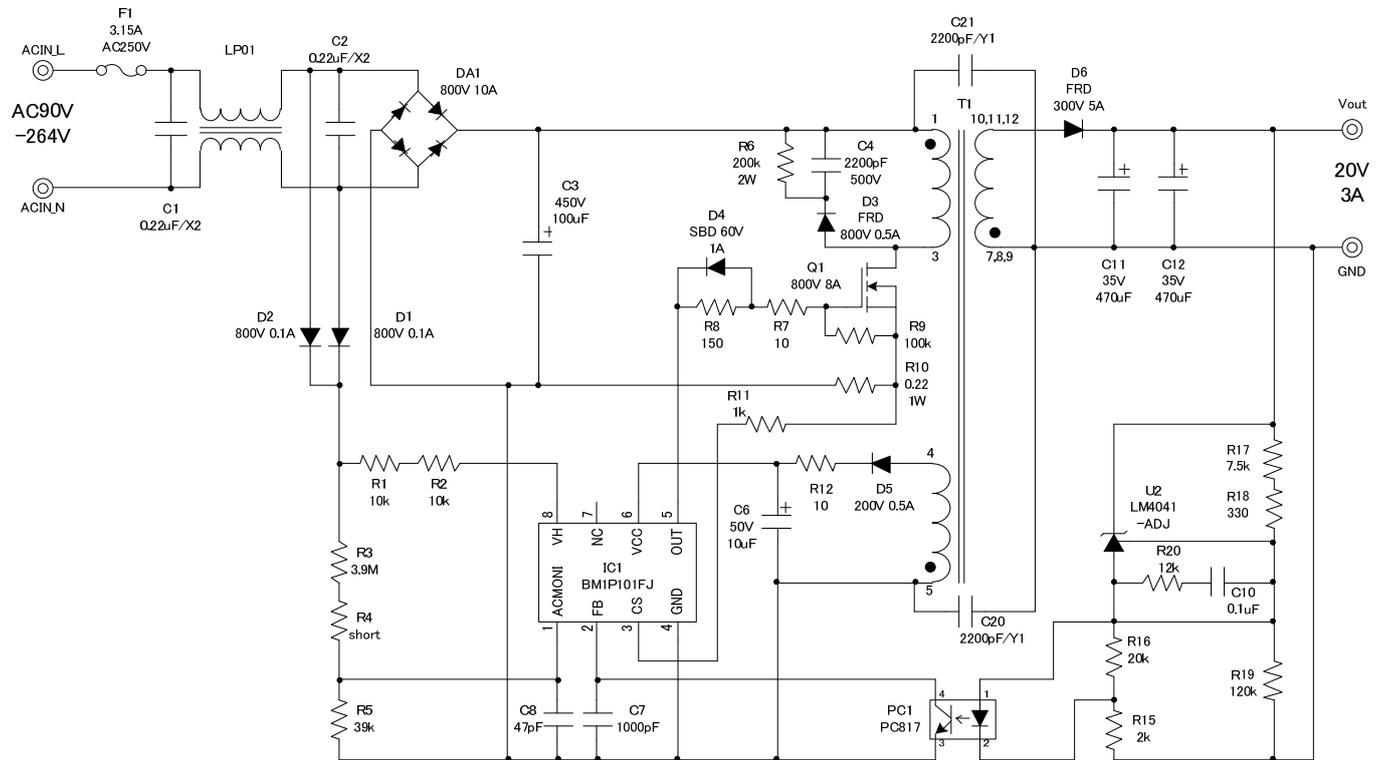


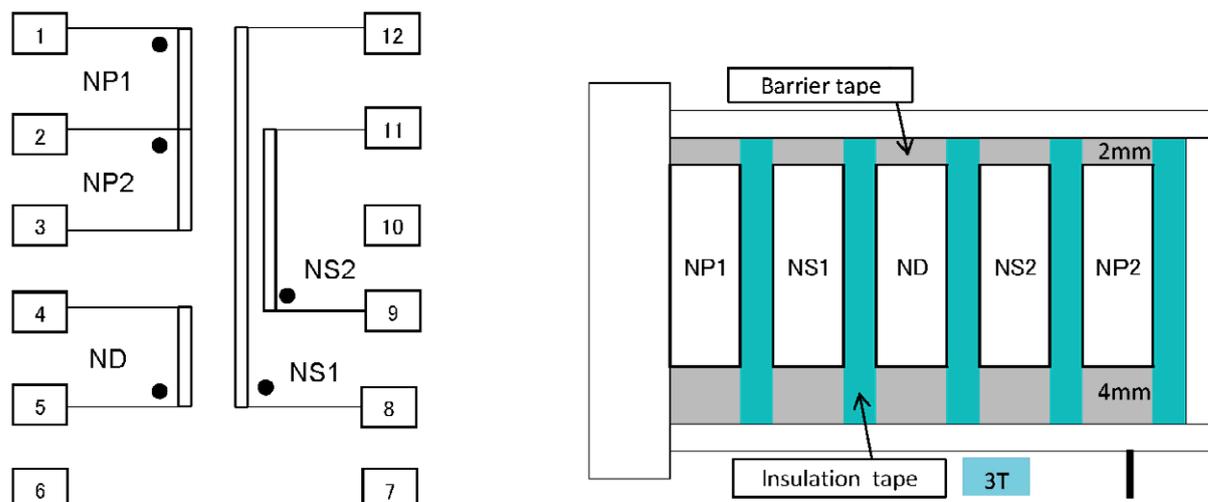
AC/DC Converter Controller Application Information

IC Product Name	BM1P101FJ
Control Method	PWM
Input	100 Vac to 240 Vac
Output	20V 3A
Type	Isolation
Document Number	W-I-2000300-0000-00
Revision	001

Reference Circuit



Transformer Specification



Core: JFE MB3 EER-28.5B or compatible

Bobbin: JFE BER28.5MP12 Vertical/Terminal Pins 6-6(12pins) or compatible

AL-Value: 125 nH/N²

Inductance(1-3pin): 0.800 mH±15%

Coil	Terminal	Turns	Wire	Winding Method
NP1	'1-2	40	2UEW 0.35	1 Layer FIT(密)
NS1	'8-12	32	2UEW 0.45	1 Layer FIT(密)
ND	'5-4	20	2UEW 0.35 X 2	1 Layer FIT(密)
NS2	'9-11	32	2UEW 0.45	1 Layer FIT(密)
NP2	'2-3	40	2UEW 0.35	1 Layer FIT(密)

耐圧 P-S : AC3.0kVrms 1MIN. 2mA or AC3.6kVrms 1s 2mA

PS-CORE: AC1.5kVrms 1MIN. 2mA or AC1.8kVrms 1s 2mA

IR : P-S, PS-CORE 100 MΩ MIN. at DC 500V

巻始め : バリアテープ固定

巻終り : 直角引き出し挟み込み処理

巻方向 : 統一

Bill of Materials

Item	Spec	Parts name	Maker
C1	0.1 μ F/X2	LE224	Okaya
C2	0.1 μ F/X2	LE224	Okaya
C3	100 μ F/450V	450V 100 μ F	
C4	2200pF/500V	CK45-R3AD222KYNS	TDK
C6	10 μ F/50V	10 μ F 50V	
C7	1000pF/16V	1000pF/16V 1608	
C8	47pF/16V	47pF/16V 1608	
C10	0.1 μ F/25V	0.1 μ F/25V 1608	
C11	Low-Z 470 μ F/35V	Low-Z 470 μ F/35V	
C12	Low-Z 470 μ F/35V	Low-Z 470 μ F/35V	
C20	2200pF/Y1	2200pF/Y1	
C21	2200pF/Y1	2200pF/Y1	
DA1	800V/10A	D10XB80	Shindengen
D1	800V/0.1A	1N4007	
D2	800V/0.1A	1N4007	
D3	FRD 800V 0.5A	RFN1L7S	Rohm
D4	SBD/FRD 40V 1A	RB160VA-40TR/RB160VAM-40	Rohm
D5	200V 0.5A	RF05VA2STR/RF05VAM2S	Rohm
D6	FRD 300V 5A	RF2001T3D/RFN20T2D	Rohm
F1		3.15A/AC250V	
IC1		BM1P101FJ	Rohm
LP01		SS26V-100250	NEC Tokin
Q1	800V 8A	R8008ANX	Rohm
R1	10k Ω	MCR18EZHZ103	Rohm
R2	10k Ω	MCR18EZHZ103	Rohm
R3	3.9M Ω	MCR18EZHZ395	Rohm
R4	short		
R5	39k Ω	MCR10EZPJ393	Rohm
R6	200k Ω /2W	200k Ω /2W	
R7	10 Ω	MCR18EZPJ100	Rohm
R8	150 Ω	MCR10EZPJ151	Rohm
R9	100k Ω	MCR10EZPJ104	Rohm
R10	0.22 Ω /1W	0.22 Ω /1W	
R11	1k Ω	MCR10EZPJ102	Rohm
R12	10 Ω	MCR18EZHZ100	Rohm
R15	2k Ω	MCR10EZPJ202	Rohm
R16	20k Ω	MCR10EZPJ203	Rohm
R17	7.5k Ω	MCR10EZPJ752	Rohm
R18	330k Ω	MCR10EZPJ331	Rohm
R19	120k Ω	MCR10EZPJ124	Rohm
R20	12k Ω	MCR10EZPJ123	Rohm
T1	EER28L		
		LM4041-ADJ	
		PC817	

Revision History

Date	Revision	Changes
7.Mar.2014	001	New Release

AC/DC Design Library Disclaimer

1. ROHM's site terms and conditions of use on our website shall apply to you and your utilization of this "AC/DC Design Library" ("Tools").
2. The Tools attempt to support users who develop products and/or components incorporating ROHM's products, but any information contained in this Tools, including, but not limited to, reference circuit, simulation result and bill of materials ("Information") is solely for the purpose of reference, not for the purpose of exemplification or recommendation. ROHM does not warrant that any Information will meet your input-output specifications, will be suitable for your application, or will operate as shown in the simulation in a real equipment used for particular purposes. ROHM ASSUMES NO LIABILITY FOR ANY DAMAGES WHATSOEVER ARISING OUT OF THE TOOLS OR INFORMATION CONTAINED IN THE TOOLS. You are solely responsible for all respects of design, development and production for your own products, including but not limited to: designing a final products or components; verifying and testing such final products or components under actual operating conditions and applicable circumstances; determining the appropriateness of the use of Information in such final products or components; evaluating and determining the applicability of any Information.
3. The Tools and Information are provided for use AS-IS basis. ROHM SHALL NOT, EXPRESSLY OR IMPLIEDLY, MAKE ANY WARRANTY OF ANY KIND INCLUDING BUT NOT LIMITED TO WARRANTIES OF AVAILABILITY, FUNCTIONALITY, CORRECTNESS, MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE.
4. While this Tools run a simulation or carry out an operation through public information and specifications, the Information may not be current at the time of simulation. ROHM does not warrant the correctness, accuracy and completeness of the Information.
5. All Information is for reference only. ROHM does not warrant that the Information will not infringe any intellectual property rights or any other rights of any third party. ROHM SHALL NOT BE IN ANY WAY RESPONSIBLE OR LIABLE FOR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OR OTHER DAMAGES ARISING FROM USE OF SUCH INFORMATION. No license, expressly or implied, is granted hereby under any intellectual property rights or other rights of ROHM or any third parties with respect to the Information.
6. Except for specific applications as expressly stated in ROHM's data sheet, ROHM's products described in Tools are designed and manufactured for application in ordinary electronic equipments (such as AV equipment, OA equipment, telecommunication equipment, home electronic appliances, amusement equipment, etc.). If you intend to use ROHM's products in devices requiring extremely high reliability (such as medical equipment^(Note 1), transport equipment, traffic equipment, aircraft/spacecraft, nuclear power controllers, fuel controllers, car equipment including car accessories, safety devices, etc.) and whose malfunction or failure may cause loss of human life, bodily injury or serious damage to property ("Specific Applications"), please consult with ROHM sales representative in advance. UNLESS OTHERWISE AGREED IN WRITING BY ROHM IN ADVANCE, ROHM SHALL NOT BE IN ANY WAY RESPONSIBLE OR LIABLE FOR ANY DAMAGES, EXPENSES OR LOSSES INCURRED BY YOU OR THIRD PARTIES ARISING FROM THE USE OF ANY ROHM'S PRODUCTS OR INFORMATION FOR SPECIFIC APPLICATIONS.

(Note1) Medical Equipment Classification of the Specific Applications

JAPAN	USA	EU	CHINA
CLASS III	CLASS III	CLASS II b	CLASS III
CLASS IV		CLASS III	

7. Any system embedding electronic devices can fail or malfunction at a certain rate. Please be sure to implement, at your own responsibilities, adequate safety measures including but not limited to fail-safe design against the physical injury, damage to any property, to or for your products, components and applications.
8. In no event shall you use in any way whatsoever the products described in the Tools and the Information for any military purposes, including but not limited to, the development of mass-destruction weapons.
9. ROHM reserves the right to modify, improve or otherwise change its products and/or Information in Tools, or to cease or terminate this web simulation services without prior written notice. Before purchasing or using ROHM's products, you must refer to and comply with the latest version of all related technical information for products.