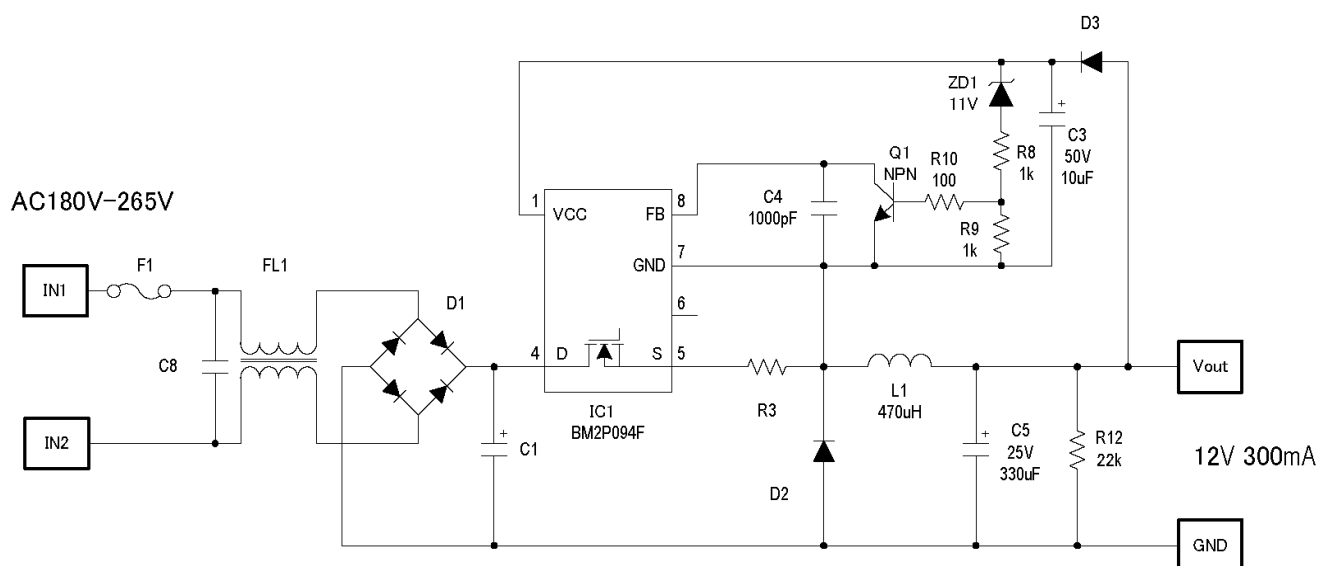


# AC/DC Converter Controller

## Application Information

IC Product Name	BM2P094F
Control Method	PWM
Input	180 Vac to 265 Vac
Output	12V 0.3A
Type	Non-isolation
Document Number	2-N-1200030-0000-00
Revision	001

## Reference Circuit



## Bill of Materials

Item	Spec	Parts name	Maker
C1	4.7uF/400V		
C3	10uF/50V		
C4	1000pF/16V		
C5	Low-Z 330uF/25V		
C8	0.1uF/AC250V X-Cap		
D1	800V/1A	1N4007 x 4	
D2	FRD 600V/1A	RFN2L6S	Rohm
D3	600V/0.5A	1SR154-600	Rohm
F1	1A		
FL1	CMC 10mH		
IC1		BM2P094F	Rohm
L1	470uH/0.6A		
Q1	NPN 50V/0.1A	2SC4081UB	Rohm
R3	1.2Ω/0.5W	MCR25JZHFLR20	Rohm
R8	1kΩ	MCR10EZPJ102	Rohm
R9	1kΩ	MCR10EZPJ102	Rohm
R10	100Ω	MCR10EZPJ101	Rohm
R12	22kΩ	MCR10EZPJ223	Rohm
ZD1	11V	UDZVTE1711B	Rohm

## 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 newness, 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<sup>(Note 1)</sup>, 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.