

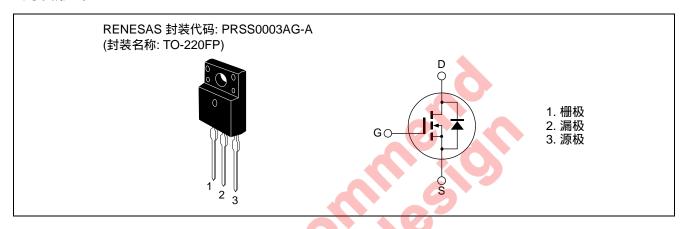
# RJK60S1DPP-E0

600V - 8A - 超结场效应晶体管 快速电源开关 R07DS0854CJ0002 修订版本 0.02 Oct 10, 2012

### 特点

- 超结场效应晶体管
- 低漏极/源极通态电阻
   R<sub>DS(on)</sub> = 0.84 Ω 典型值 (I<sub>D</sub> = 2.2A, V<sub>GS</sub> = 10 V, Ta = 25°C)

## 封装形式



# 绝对最大额定值

 $(Ta = 25^{\circ}C)$ 

萝	数	符号	额定值	单位
漏极/源极电压		V <sub>DSS</sub>	600	V
栅极/源极电压		V <sub>GSS</sub>	+30, -20	V
漏极电流	Tc = 25°C	I <sub>D</sub> 注1,2	8	А
	Tc = 100°C	I <sub>D</sub> 注1,2	5	Α
体二极管反向漏极电流		I <sub>DR</sub> 注1	8	Α
沟道最大容许损耗		Pch <sup>注 3</sup>	24	W
沟道-外壳间热阻		θch-c	5.2	°C/W
沟道温度		Tch	150	°C
储存温度		Tstg	-55 to +150	°C

- 注: 1. 限于 Tch 的最大值
  - 2. 最大工作周期为 D = 0.5
  - 3. 在 Tc = 25°C 的容许值

初始 RJK60S1DPP-E0

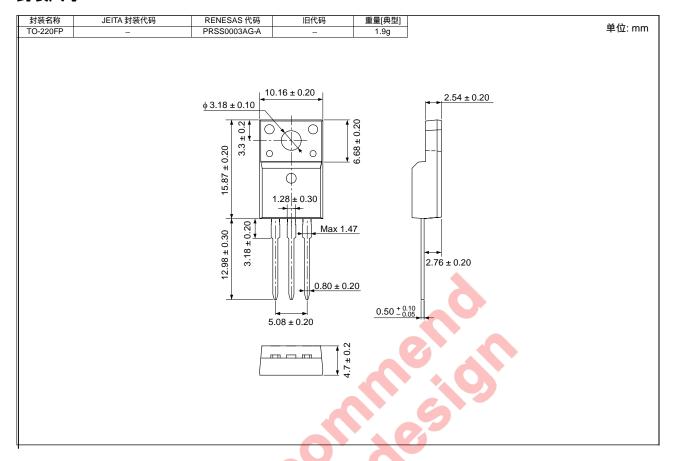
## 电特性

 $(Ta = 25^{\circ}C)$ 

参数	符号	最小值	典型值	最大值	单位	测定条件		
漏极/源极破坏电压	$V_{(BR)DSS}$	600	_	_	V	$I_D = 10 \text{ mA}, V_{GS} = 0$		
漏极截止电流	I <sub>DSS</sub>	_	_	1	mA	$V_{DS} = 600 \text{ V}, V_{GS} = 0$		
栅极截止电流	I <sub>GSS</sub>	_	_	±0.1	μА	$V_{GS} = +30V, -20 V, V_{DS} = 0$		
栅极/源极截止电压	$V_{GS(off)}$	3	_	5	V	$V_{DS} = 10 \text{ V}, I_{D} = 1 \text{ mA}$		
静态漏极/源极通态电阻	R <sub>DS(on)</sub>	_	0.84	1.05	Ω	$I_D = 2.2 \text{ A}, V_{GS} = 10 \text{ V}^{\pm 4}$		
	R <sub>DS(on)</sub>	_	2.10	_	Ω	Ta = 150°C		
						$I_D = 2.2 \text{ A}, V_{GS} = 10 \text{ V}^{\pm 4}$		
栅极电阻	Rg	_	3.5	_	Ω	f = 1 MHz		
						$V_{DS} = 25 \text{ V}, V_{GS} = 0$		
输入电容	Ciss	_	310	_	pF	V <sub>DS</sub> = 25 V		
输出电容	Coss	_	500	_	pF	$V_{GS} = 0$		
反向传输电容	Crss	_	2	_	pF	f = 100 kHz		
体二极管正向电压	$V_{DF}$	_	1.0	1.6	V	$I_F = 4.4 \text{ A}, V_{GS} = 0^{\frac{12}{4}}$		
注: 4. 脉冲测试								

RJK60S1DPP-E0 初始

# 封装尺寸



# 订购信息

订购型号	数量	运输包装
RJK60S1DPP-E0#T2	1000 枚	纸盒包装 (管状容器)

#### Notice

- Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation of these circuits, software, and information in the design of your equipment. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties arising from the use of these circuits, software, or information.
- Renesas Electronics has used reasonable care in preparing the information included in this document, but Renesas Electronics does not warrant that such information is error free. Renesas Electronics
- assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

  Renesas Electronics does not assume any liability for infringement of patents, copyrights, or other intellectual property rights of third parties by or arising from the use of Renesas Electronics to the chick information described in this document. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics of the chick information described in this document. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics of the chick in the chick
- Outers.
  You should not alter, modify, copy, or otherwise misappropriate any Renesas Electronics product, whether in whole or in part. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties arising from such alteration, modification, copy or otherwise misappropriation of Renesas Electronics product.
  Renesas Electronics products are classified according to the following two quality grades: "Standard" and "High Quality". The recommended applications for each Renesas Electronics product depends on the product's quality grade, as indicated below.
- "Standard": Computers; office equipment; communications equipment; test and measurement equipment; audio and visual equipment; home electronic appliances; machine tools; personal electronic
- equipment; and industrial robots etc.
  "High Quality": Transportation equipment (automobiles, trains, ships, etc.); traffic control systems; anti-disaster systems; anti-crime systems; and safety equipment etc.

- "High Quality": Transportation equipment (automobiles, trains, ships, etc.); traffic control systems; anti-disaster systems; anti-disaster systems; and safety equipment etc.

  Renease Electronics products are neither intended nor authorized for use in products or systems that may pose a direct threat to human life or bodily injury (artificial life support devices or systems, surgical implantations etc.), or may cause serious property damages (nuclear reactor control systems, military equipment etc.). You must check the quality grade of each Renesas Electronics product before using it in a particular application. You may not use any Renesas Electronics product for which it is not intended by Renesas Electronics shall not be in any way liable for any damages or losses incurred by you or third parties arising from the use of any Renesas Electronics product for which the product for which the product is not intended by Renesas Electronics.

  You should use the Renesas Electronics products described in this document within the range specified by Renesas Electronics, especially with respect to the maximum rating, operating supply voltage range, movement power voltage range, heat radiation characteristics, installation and other product characteristics. Renesas Electronics products beyond such specified ranges.

  Although Renesas Electronics endeavors to improve the quality and reliability of its products, semiconductor products have specific characteristics such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Further, Renesas Electronics products are not subject to radiation resistance design. Please be sure to implement safety measures to guard them against the possibility of physical injury, and injury or damage caused by fire in the event of the failure of a Renesas Electronics product, such as safety design for hardware and software including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures. Because the evaluation of microcomputer software alone is very difficult, please evaluate the safety of the final products or systems manufactured by you.

  Please contact a Renessa Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renessa Electronics product. Please use Renessa Electronics
- Please contact a Renesas Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renesas Electronics product. Please use Renesas Electronics products in compliance with all applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive. Renesas Electronics assumes no liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.
   Renesas Electronics products and technology may not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable domestic or foreign laws or regulations. You should not use Renesas Electronics products or technology described in this document for any purpose relating to military applications or use by the military, including but not limited to the development of weapons of mass destruction. When exporting the Renesas Electronics products or technology described in this document, you should comply with the applicable export control laws and regulations.
   It is the responsibility of the buyer or distributor of Renesas Electronics products, who distributes, disposes of, or otherwise places the product with a third party, to notify such third party in advance of the contents and conditions set forth in this document, Renesas Electronics assumes no responsibility for any losses incurred by you or third partles as a result of unauthorized use of Renesas Electronics products.
- products.

  This document may not be reproduced or duplicated in any form, in whole or in part, without prior written consent of Renesas Electronics.
- 12. Please contact a Renesas Electronics sales office if you have any questions regarding the information contained in this document for Renesas Electronics products, or if you have any other inquiries.

  (Note 1) "Renesas Electronics" as used in this document means Renesas Electronics Corporation and also includes its majority-owned subsidiaries.

  (Note 2) "Renesas Electronics product(s)" means any product developed or manufactured by or for Renesas Electronics.

以下"注意事项"为从英语原稿翻译的中文译文,仅作为参考译文,英文版的"Notice"具有正式效力

### 注意事项

- 本文档中所记载的关于电路、软件和其他相关信息仅用于说明半导体产品的操作和应用实例。用户如在设备设计中应用本文档中的电路、软件和相关信息,请自行负责。对于用户或第三方因使用上述电路、软件或信息而遭受的任何损失、瑞萨电子不承担任何责任。
- 在准备本文档所记载的信息的过程中,辅萨电子已尽量提到台理注意,但是,瑞萨电子并不保证这<mark>些</mark>信息都是准确无误的。<mark>用户因本文档中</mark>所记载的信息的错误或遗漏而遭受的任何损失,瑞萨电子不承担

- 12.
- 瑞萨电子: 在本文档中指瑞萨电子株式会社及其控股子公司。 瑞萨电子产品: 指瑞萨电子开发或生产的任何产品。 (注1) (注2)

# RENESAS

#### **SALES OFFICES**

#### Renesas Electronics Corporation

http://www.renesas.com

Refer to "http://www.renesas.com/" for the latest and detailed information

Renesas Electronics America Inc. 2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A. Tel: +1-408-588-6000, Fax: +1-408-588-6130

Renesas Electronics Canada Limited 1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada Tel: +1-905-898-5441, Fax: +1-905-898-3220

Renesas Electronics Europe Limited
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K
Tel: +44-1628-651-709, Fax: +44-1628-651-804

Renesas Electronics Europe GmbH Arcadiastrasse 10, 40472 Düsseldorf, Germany Tel: +49-211-65030, Fax: +49-211-6503-1327

Renesas Electronics (China) Co., Ltd.
7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China
Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.
Unit 204, 205, AZIA Center, No. 1233 Lujiazui Ring Rd., Pudong District, Shanghai 200120, China
Tei: +86-21-5877-1818, Fax: +86-21-6887-7858 / -7898

Renesas Electronics Hong Kong Limited
Unit 1601-1613, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong Tel: +852-2886-9318, Fax: +852 2886-9022/9044

Renesas Electronics Taiwan Co., Ltd. 13F, No. 363, Fu Shing North Road, Taipei, Taiwan Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd. 80 Bendemeer Road, Unit #06-02 Hyflux Innovation Centre Singapore 339949 Tel: +65-6213-0200. Fax: +65-6213-0300

Renesas Electronics Malaysia Sdn.Bhd.
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050
Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

Renesas Electronics Korea Co., Ltd. 11F., Samik Lavied' or Bldg., 720-2 Yeoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea 7EI: +82-2-558-3737, Fax: +82-2-558-5141

© 2012 Renesas Electronics Corporation. All rights reserved.