

# RJU6053TDPP-EJ

Single Diode  
Ultra Fast Recovery Diode

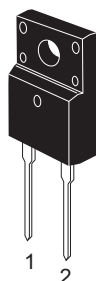
R07DS0383EJ0100  
Rev.1.00  
Apr 26, 2011

## Features

- Ultra fast reverse recovery time:  $t_{rr} = 25$  ns typ. (at  $I_F = 20$  A,  $di/dt = 100$  A/ $\mu$ s)
- Low forward voltage:  $V_F = 2.5$  V typ. (at  $I_F = 20$  A)
- Low reverse current:  $I_R = 1$   $\mu$ A max. (at  $V_R = 600$  V)

## Outline

RENESAS Package code: PRSS0002ZA-A  
(Package name: TO-220FP-2L)



1. Cathode  
2. Anode

## Absolute Maximum Ratings

( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Ratings	Unit
Maximum reverse voltage	$V_{RM}$	600	V
Continuous forward current	$T_C = 25^\circ\text{C}$	$I_F = 20$	A
	$T_C = 100^\circ\text{C}$	$I_F = 10$	A
Peak surge forward current	$I_{FSM}$	60	A
Junction to case thermal resistance	$\theta_{j-cd}$	2.5	$^\circ\text{C}/\text{W}$
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

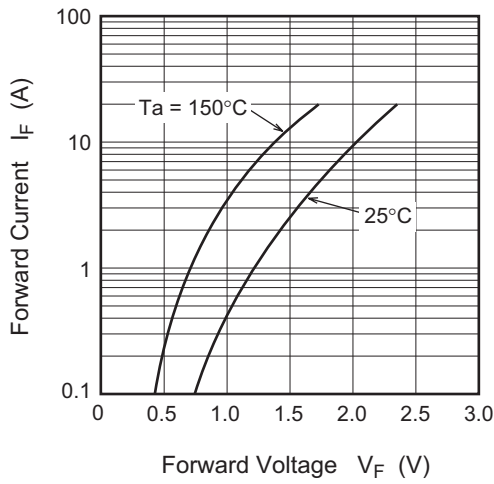
## Electrical Characteristics

( $T_a = 25^\circ\text{C}$ )

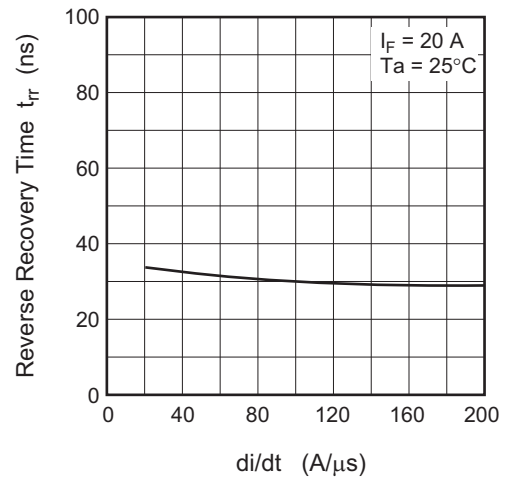
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	$V_F$	—	2.5	3.0	V	$I_F = 20$ A
Reverse current	$I_R$	—	—	1	$\mu\text{A}$	$V_R = 600$ V
Reverse Recovery Time	$t_{rr}$	—	25	—	ns	$I_F = 20$ A, $di/dt = 100$ A/ $\mu$ s

Main Characteristics

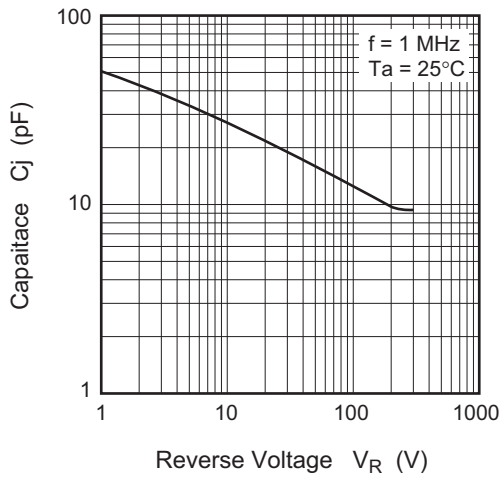
Forward Current vs. Forward Voltage (Typical)



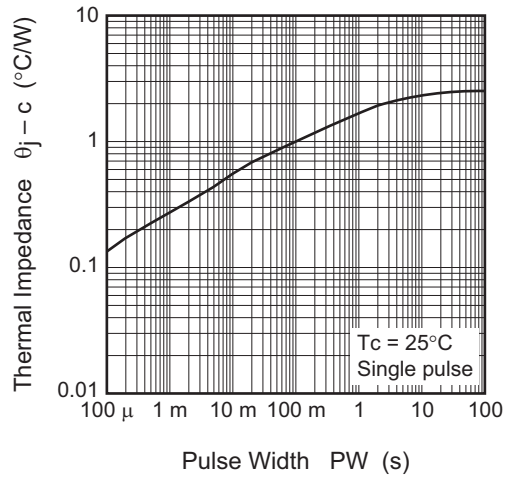
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



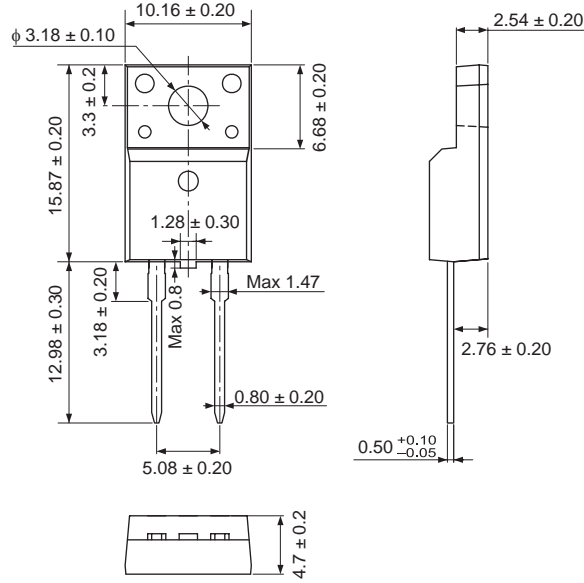
Thermal Impedance vs. Pulse Width



### Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TO-220FP-2L	—	PRSS0002ZA-A	—	1.7g

Unit: mm



### Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJU6053TDPP-EJ-T2	600 pcs	Box (Tube)

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**Renesas Electronics America Inc.**  
2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A.  
Tel: +1-408-586-6000, Fax: +1-408-586-6130

**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: +44-1628-585-100, Fax: +44-1628-585-900

**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  
Tel: +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.**  
1 HarbourFront Avenue, #06-10, Keppel Bay Tower, Singapore 098632  
Tel: +65-6213-0200, Fax: +65-6276-8001

**Renesas Electronics Malaysia Sdn.Bhd.**  
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jin 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  
Tel: +82-2-558-3737, Fax: +82-2-558-5141