

# RJU6053SDPE

Single Diode  
Ultra Fast Recovery Diode

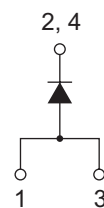
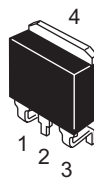
R07DS0382EJ0100  
Rev.1.00  
Apr 26, 2011

## 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: PRSS0004AE-B  
(Package name: LPAK (S)-(1) )



1. Anode
2. Cathode
3. Anode
4. Cathode

## 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
	$T_C = 100^\circ\text{C}$	$I_F$	10
Peak surge forward current	$I_{FSM}$	60	A
Junction to case thermal resistance	$\theta_{j-cd}$	1.4	$^\circ\text{C}/\text{W}$
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

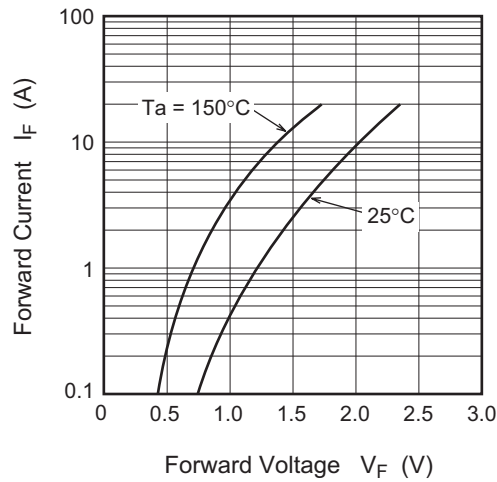
## Electrical Characteristics

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

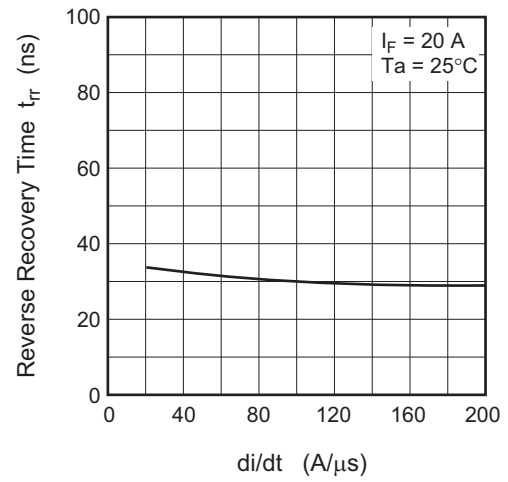
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	$V_F$	—	2.5	3.0	V	$I_F = 20$ A
Reverse current	$I_R$	—	—	1	$\mu\text{A}$	$V_R = 600$ V
Reverse Recovery Time	$t_{rr}$	—	25	—	ns	$I_F = 20$ A, $di/dt = 100$ A/ $\mu$ s

## Main Characteristics

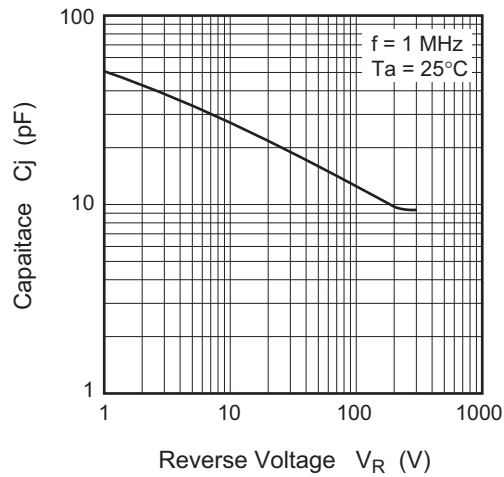
Forward Current vs. Forward Voltage (Typical)



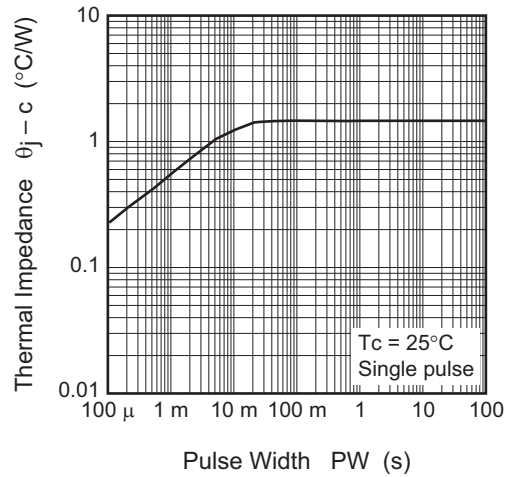
Reverse Recovery Time vs.  $di/dt$  (Typical)



Capacitance vs. Reverse Voltage (Typical)



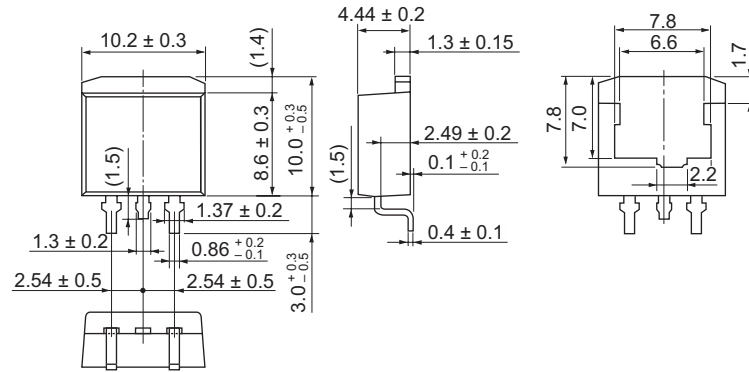
Thermal Impedance vs. Pulse Width



## Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
LDBAK(S)-(1)	SC-83	PRSS0004AE-B	LDBAK(S)-(1) / LDBAK(S)-(1)V	1.30g

Unit: mm



## Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJU6053SDPE-00-J3	1000 pcs	Taping

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