

RJU6053SDPE

Single Diode
Ultra Fast Recovery Diode

R07DS0382EJ0100

Rev.1.00

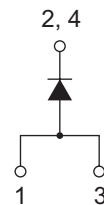
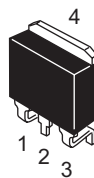
Apr 26, 2011

Features

- Ultra fast reverse recovery time: $t_{rr} = 25$ ns typ. (at $I_F = 20$ A, $di/dt = 100$ A/ μ s)
- Low forward voltage: $V_F = 2.5$ V typ. (at $I_F = 20$ A)
- Low reverse current: $I_R = 1$ μ 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	θ_{j-cd}	1.4	$^\circ\text{C}/\text{W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

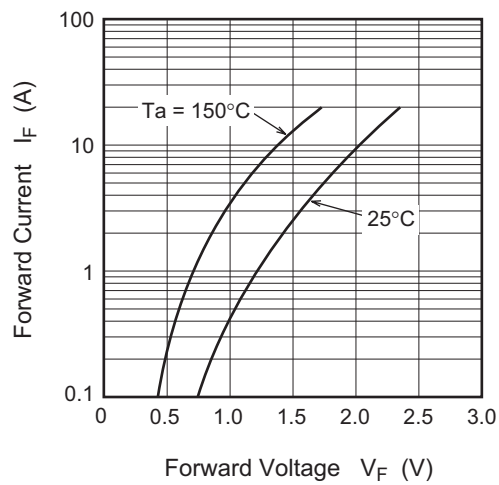
Electrical Characteristics

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

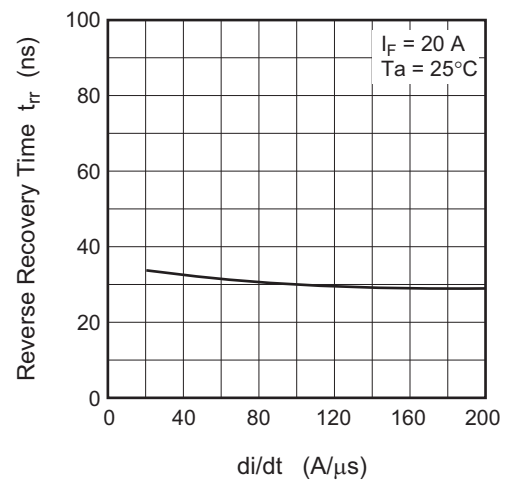
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	V_F	—	2.5	3.0	V	$I_F = 20$ A
Reverse current	I_R	—	—	1	μA	$V_R = 600$ V
Reverse Recovery Time	t_{rr}	—	25	—	ns	$I_F = 20$ A, $di/dt = 100$ A/ μ s

Main Characteristics

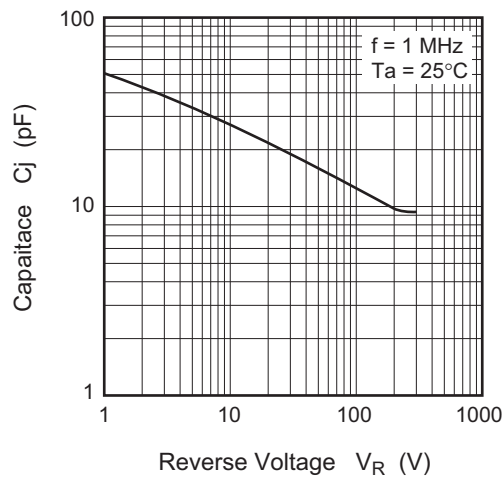
Forward Current vs. Forward Voltage (Typical)



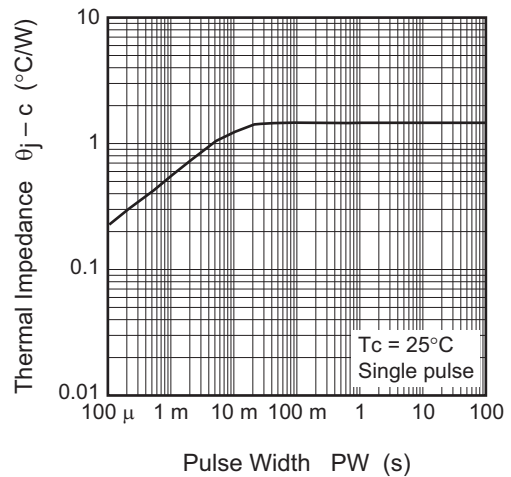
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



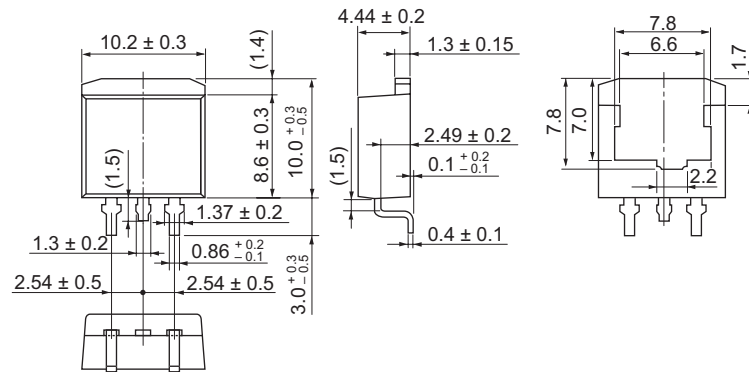
Thermal Impedance vs. Pulse Width



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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