

RJU3052SDPD-E0

360V - 20A - Single Diode
Ultra Fast Recovery Diode

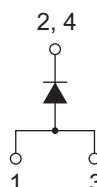
R07DS0890EJ0100
Rev.1.00
Oct 29, 2012

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: $V_F = 1.4$ V typ. (at $I_F = 20$ A)
- Low reverse current: $I_R = 1$ μ A max. (at $V_R = 360$ V)

Outline

RENESAS Package code: PRSS0004ZJ-A
(Package name : TO-252)



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}	360	V
Continuous forward current	I_F	20	A
Peak surge forward current	I_{FSM}	80	A
Junction to case thermal resistance	θ_{j-c}	2.5	$^\circ\text{C/W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

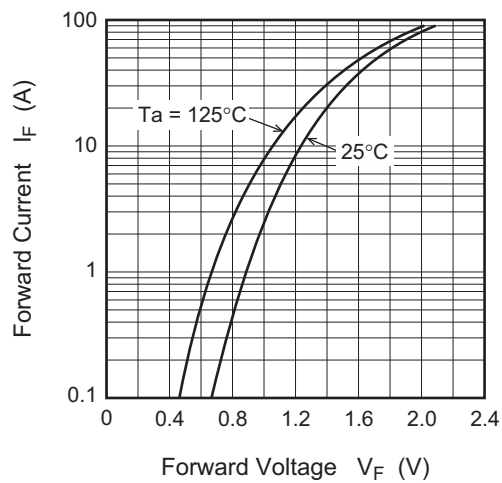
Electrical Characteristics

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

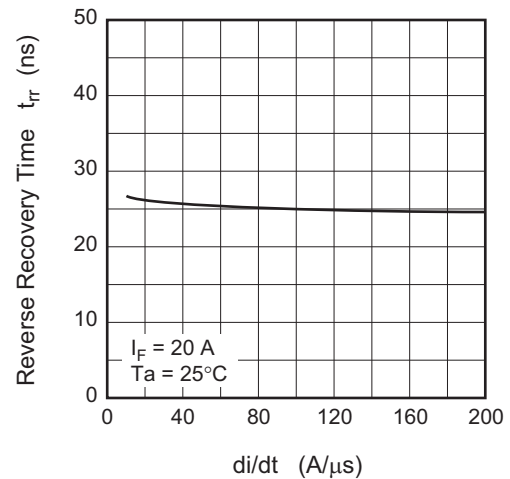
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	V_F	—	1.4	1.7	V	$I_F = 20$ A
Reverse current	I_R	—	—	1	μA	$V_R = 360$ V
Reverse Recovery Time	t_{rr}	—	25	40	ns	$I_F = 20$ A, $di/dt = 100$ A/ μ s

Main Characteristics

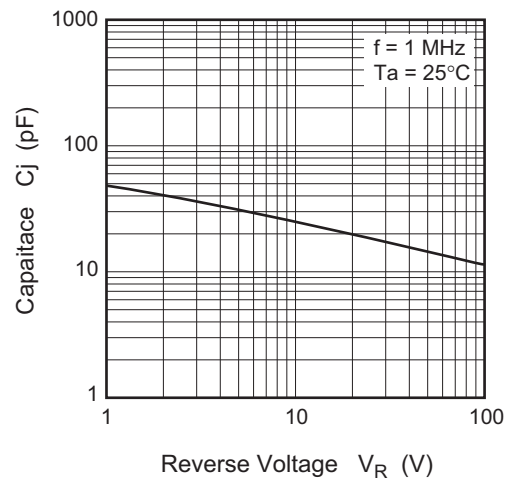
Forward Current vs. Forward Voltage (Typical)



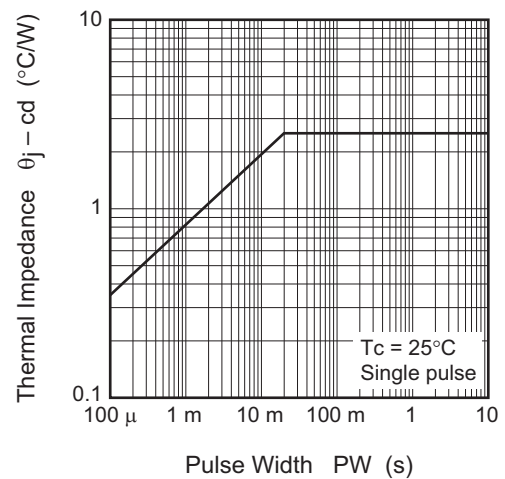
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



Thermal Impedance vs. Pulse Width



Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]	Unit: mm
TO-252	—	PRSS0004ZJ-A	—	0.319g	

Technical drawing of the RJU3052SDPD-E0 package showing top, side, and bottom views with dimensions in mm.

Top View Dimensions:

- Overall width: 6.5 ± 0.3
- Inner width: (5.6 ± 0.5)
- Pin pitch: 2.29 ± 0.5
- Pin width: 0.8 ± 0.1
- Pin length: 2.5 ± 0.5
- Pin spacing: 1.2
- Pin diameter: 0.25 Max

Side View Dimensions:

- Overall height: 1.5 ± 0.5
- Base height: 5.5 ± 0.5
- Pin height: 1.2 Max
- Pin diameter: 0.25 Max

Bottom View Dimensions:

- Overall width: 5.1
- Pin pitch: 2.29 ± 0.5
- Pin width: 0.8 ± 0.1
- Pin length: 2.5 ± 0.5
- Pin spacing: 1.2
- Pin diameter: 0.25 Max

Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJU3052SDPD-E0#J2	3000 pcs	Taping

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