

RJU6054SDPK-M0

600V - 30A - Single Diode
Ultra Fast Recovery Diode

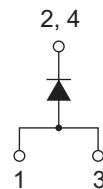
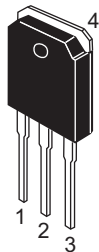
R07DS0385EJ0200
Rev.2.00
Feb 06, 2013

Features

- Ultra fast reverse recovery time: $t_{rr} = 25$ ns typ. (at $I_F = 30$ A, $di/dt = 100$ A/ μ s)
- Low forward voltage: $V_F = 2.5$ V typ. (at $I_F = 30$ A)
- Low reverse current: $I_R = 1$ μ A max. (at $V_R = 600$ V)

Outline

RENESAS Package code: PRSS0004ZH-A
(Package name: TO-3PSG)



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	30
	$T_C = 100^\circ\text{C}$	I_F	15
Peak surge forward current	I_{FSM}	120	A
Junction to case thermal resistance	θ_{j-cd}	1.1	$^\circ\text{C/W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

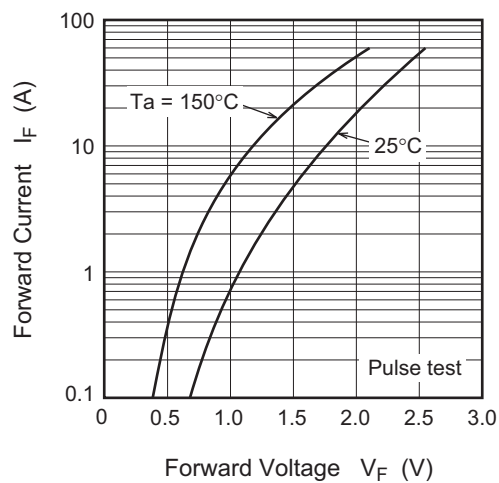
Electrical Characteristics

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

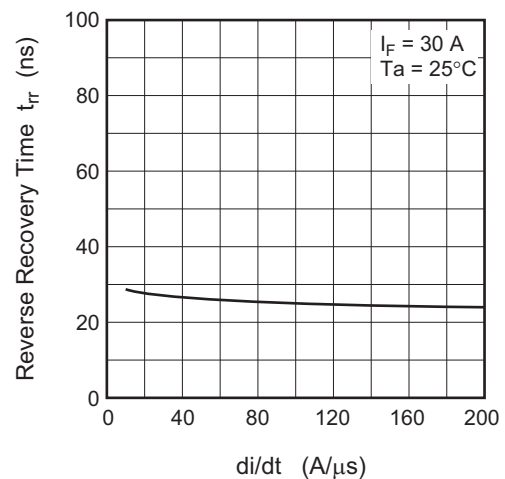
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	V_F	—	2.5	3.0	V	$I_F = 30$ A
Reverse current	I_R	—	—	1	μA	$V_R = 600$ V
Reverse Recovery Time	t_{rr}	—	25	—	ns	$I_F = 30$ A, $di/dt = 100$ A/ μ s

Main Characteristics

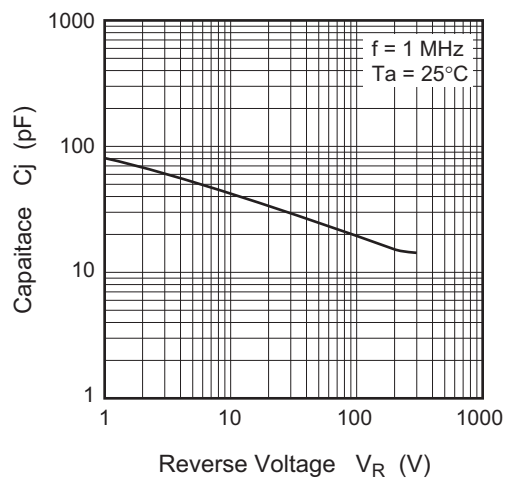
Forward Current vs. Forward Voltage (Typical)



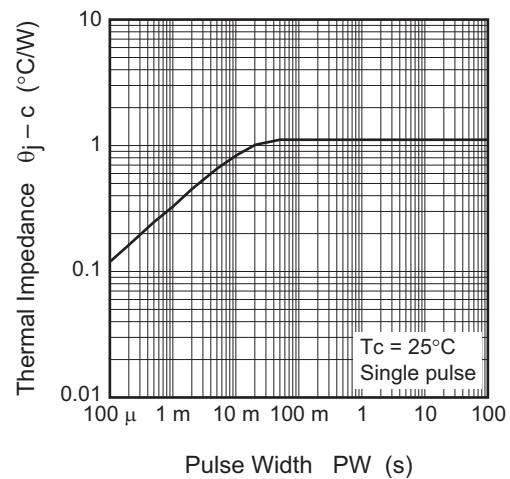
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



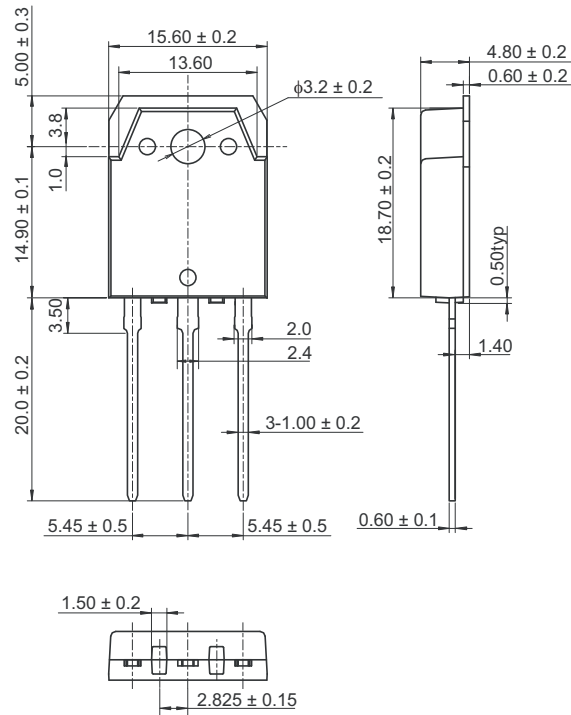
Thermal Impedance vs. Pulse Width



Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TO-3PSG	—	PRSS0004ZH-A	TO-3PSG/TO-3PSGV	3.7g

Unit: mm



Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJU6054SDPK-M0#T3	30 pcs	Tube

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