

RJU6053WDPP-M0

600V – 20A - Dual Diode
Ultra Fast Recovery Diode

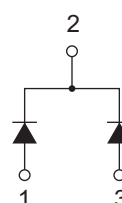
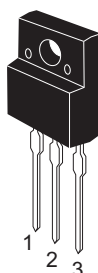
R07DS1273EJ0100
Rev.1.00
Jun 16, 2015

Features

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

Outline

RENESAS Package code: PRSS0003AF-A
(Package name: TO-220FL)



1. Anode
2. Cathode
3. Anode

Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Maximum reverse voltage	V_{RM}	600	V
Continuous forward current	I_F ^{Note1}	20/40	A
		10/20	A
Peak surge forward current	I_{FSM} ^{Note1}	60/120	A
Junction to case thermal resistance	θ_{j-cd} ^{Note3}	3.7	$^\circ\text{C/W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Notes: 1. Per leg/device
3. device

Electrical Characteristics

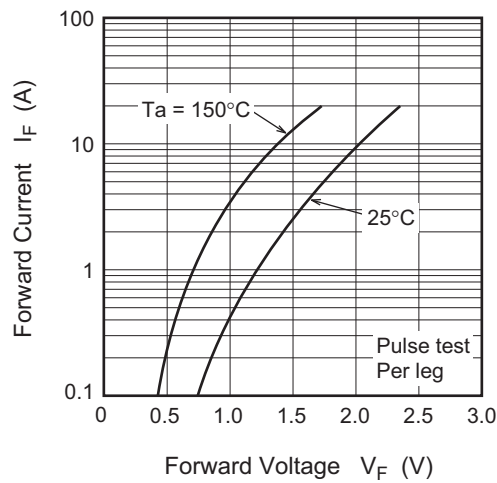
($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward Voltage	V_F ^{Note2}	—	2.5	3.0	V	$I_F = 20$ A
Reverse current	I_R ^{Note1}	—	—	1/2	μ A	$V_R = 600$ V
Reverse Recovery Time	t_{rr} ^{Note2}	—	25	—	ns	$I_F = 20$ A, $di/dt = 100$ A/ μ s

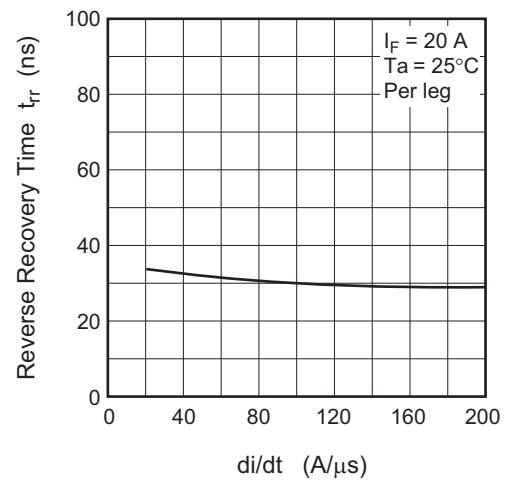
Notes: 1. Per leg/device
2. Per leg

Main Characteristics

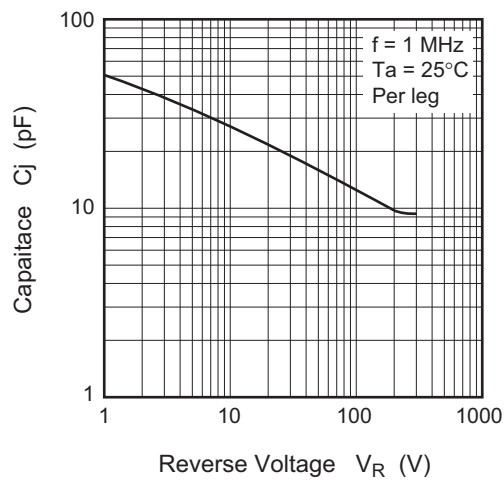
Forward Current vs. Forward Voltage (Typical)



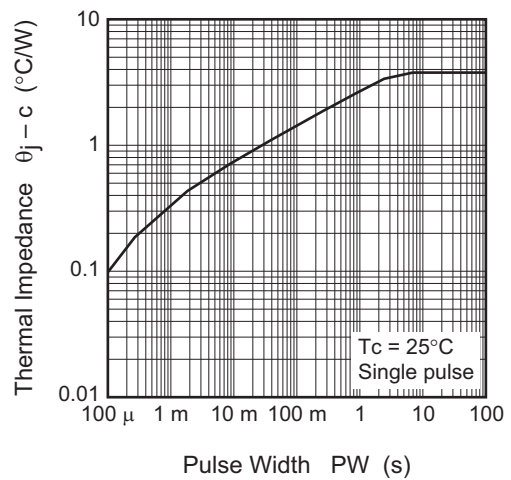
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



Thermal Impedance vs. Pulse Width



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