RJS6004WDPK

600V - 20A - Diode
SiC Schottky Barrier Diode

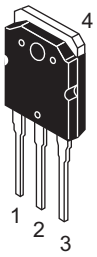
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Rev.3.00
Jan 29, 2014

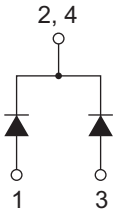
Features

- New semiconductor material: Silicon Carbide Diode
- No reverse recovery / No forward recovery

Outline

RENESAS Package code: PRSS0004ZE-A
(Package name: TO-3P)





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

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Maximum reverse voltage	V_{RM}	600	V
Continuous forward current	I_F Note1	10/20	A
Peak surge forward current	I_{FSM} Note1	60/120	A
Junction to case thermal impedance	θj-c	0.9	°C/W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Notes: 1. Per leg/device

Electrical Characteristics

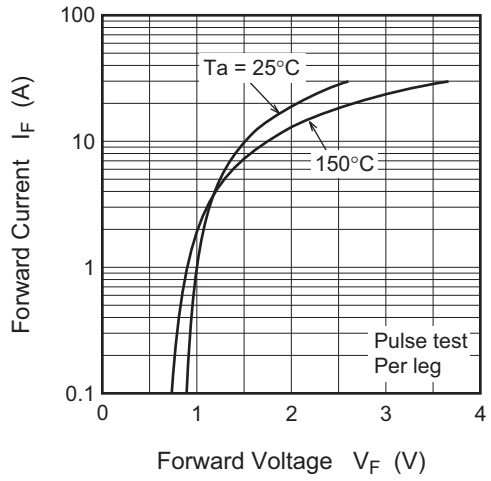
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward voltage	V_F Note2	—	1.5	1.8	V	I_F = 10 A
Reverse current	I_R Note1	—	—	10/20	µA	V_R = 600 V
Reverse recovery time	t_{rr} Note2	—	15	—	ns	I_F = 10 A, di/dt = 300A/µs

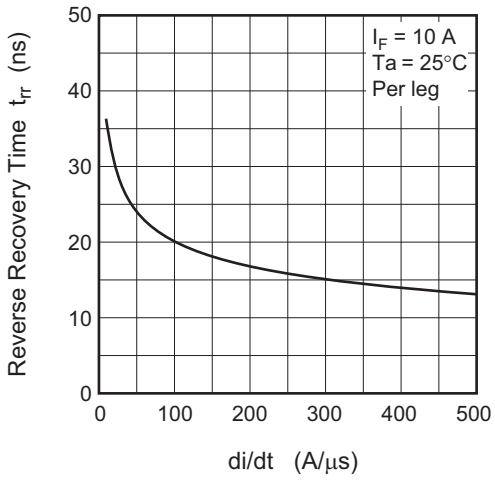
Notes: 1. Per leg/device
2. Per leg

Main Characteristics

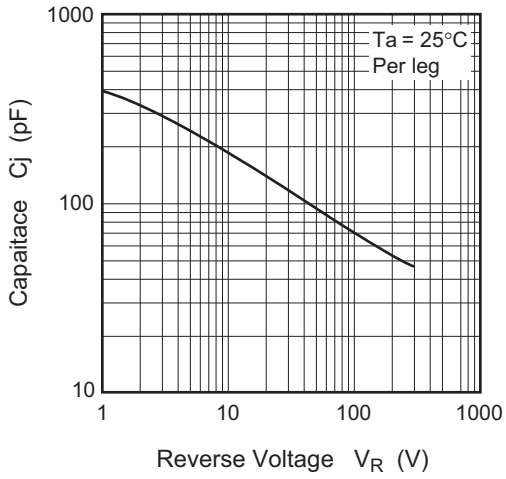
Forward Current vs. Forward Voltage (Typical)



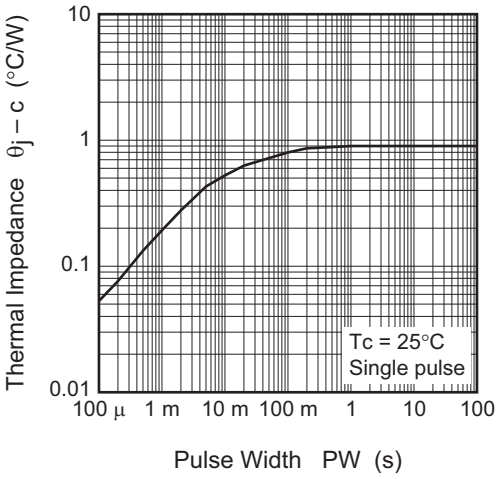
Reverse Recovery Time vs. di/dt (Typical)



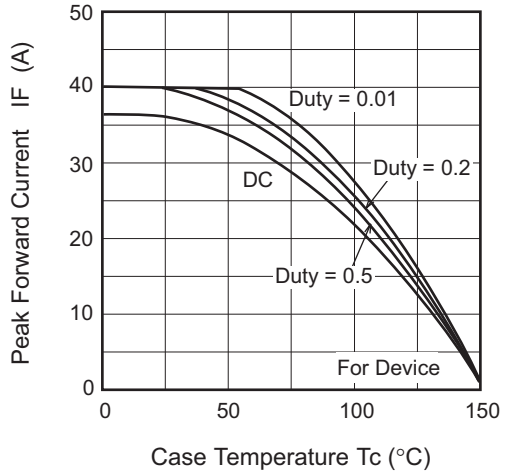
Capacitance vs. Reverse Voltage (Typical)



Thermal Impedance vs. Pulse Width



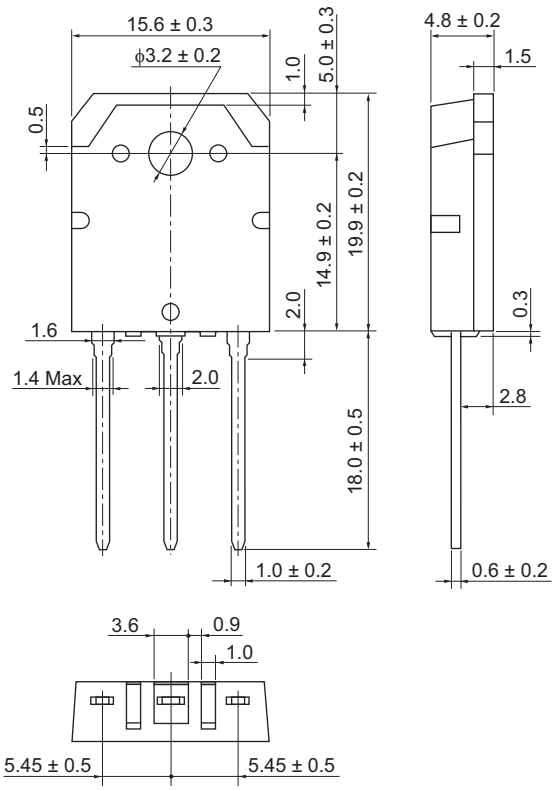
IF-Tc Characteristics (Typical)



Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
TO-3P	SC-65	PRSS0004ZE-A	TO-3P / TO-3PV	5.0g

Unit: mm



Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJS6004WDPK-00#T0	360 pcs	Box (Tube)

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