

# RJS6004WDPK

600V - 20A - Diode  
SiC Schottky Barrier Diode

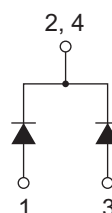
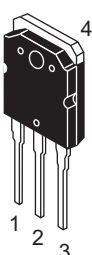
R07DS0897EJ0300  
Rev.3.00  
Jan 29, 2014

## 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	$I_F$ <sup>Note1</sup>	10/20	A
Peak surge forward current	$I_{FSM}$ <sup>Note1</sup>	60/120	A
Junction to case thermal impedance	$\theta_{j-c}$	0.9	°C/W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Notes: 1. Per leg/device

## Electrical Characteristics

(Ta = 25°C)

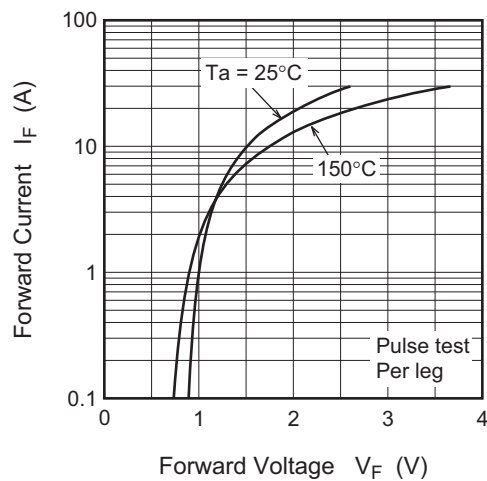
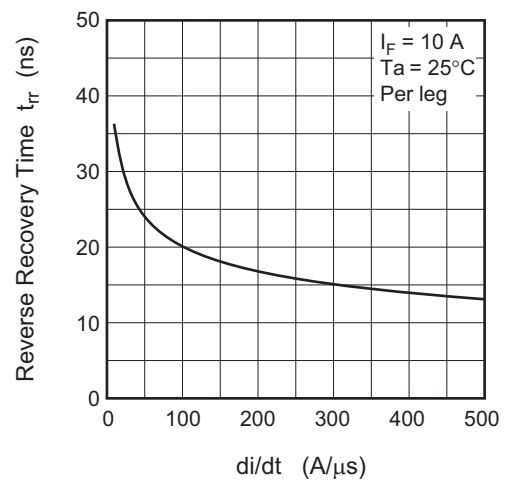
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward voltage	$V_F$ <sup>Note2</sup>	—	1.5	1.8	V	$I_F = 10\text{ A}$
Reverse current	$I_R$ <sup>Note1</sup>	—	—	10/20	$\mu\text{A}$	$V_R = 600\text{ V}$
Reverse recovery time	$t_{rr}$ <sup>Note2</sup>	—	15	—	ns	$I_F = 10\text{ A}$ , $di/dt = 300\text{ A}/\mu\text{s}$

Notes: 1. Per leg/device

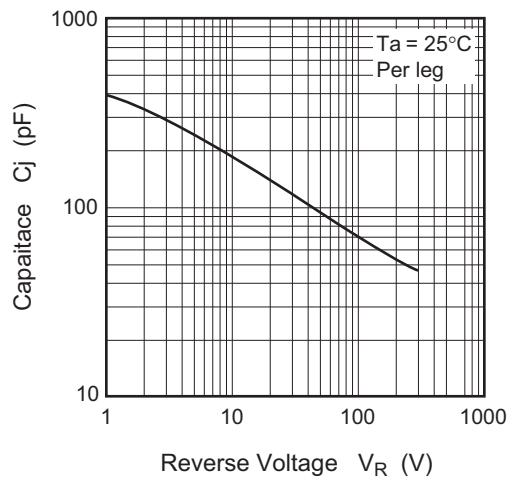
2. Per leg

## Main Characteristics

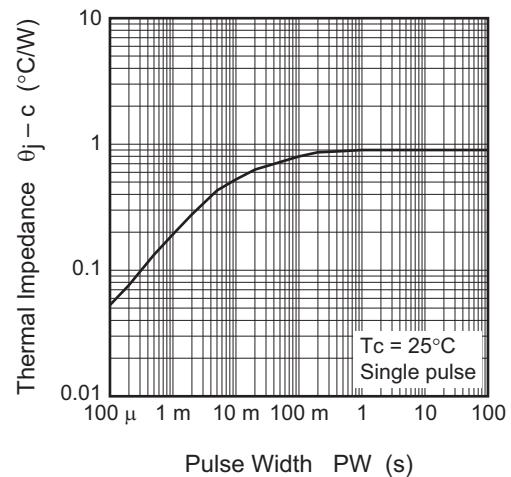
Forward Current vs. Forward Voltage (Typical)

Reverse Recovery Time vs.  $di/dt$  (Typical)

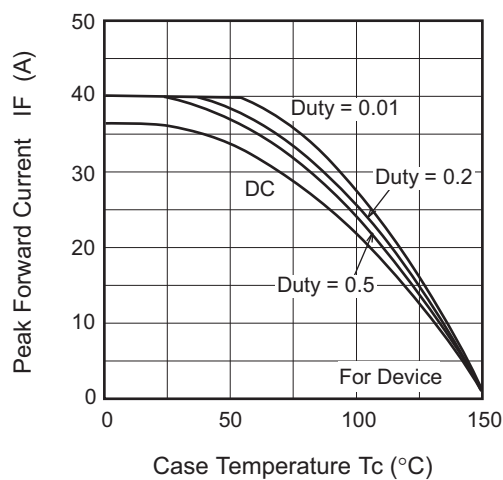
Capacitance vs. Reverse Voltage (Typical)



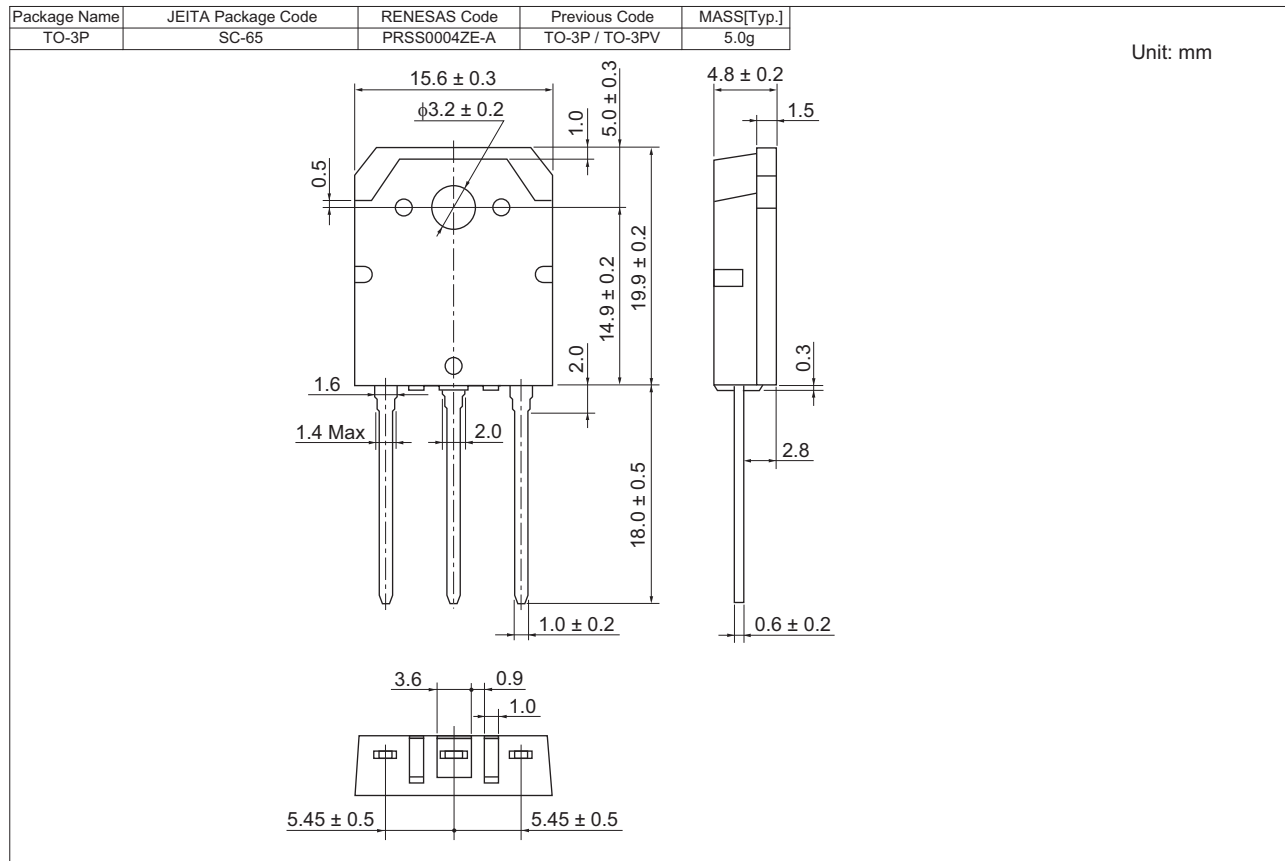
Thermal Impedance vs. Pulse Width



IF-Tc Characteristics (Typical)



## Package Dimensions



## Ordering Information

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

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