

RJS6005WDPK

600V - 30A - Diode
SiC Schottky Barrier Diode

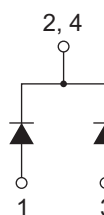
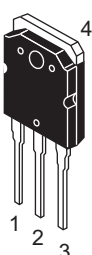
R07DS0901EJ0201
Rev.2.01
Jan 31, 2014

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}	15/30	A
Peak surge forward current	I_{FSM} ^{Note1}	90/180	A
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Notes: 1. Per leg/device

Electrical Characteristics

(Ta = 25°C)

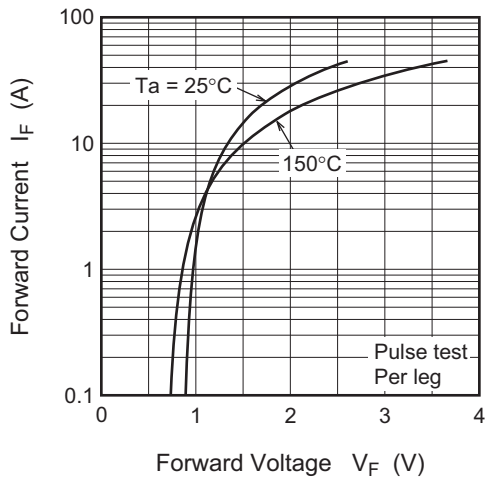
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward voltage	V_F ^{Note2}	—	1.5	1.8	V	$I_F = 15$ A
Reverse current	I_R ^{Note1}	—	—	10/20	μA	$V_R = 600$ V
Reverse recovery time	t_{rr} ^{Note2}	—	15	—	ns	$I_F = 15$ A, $di/dt = -300$ A/μs

Notes: 1. Per leg/device

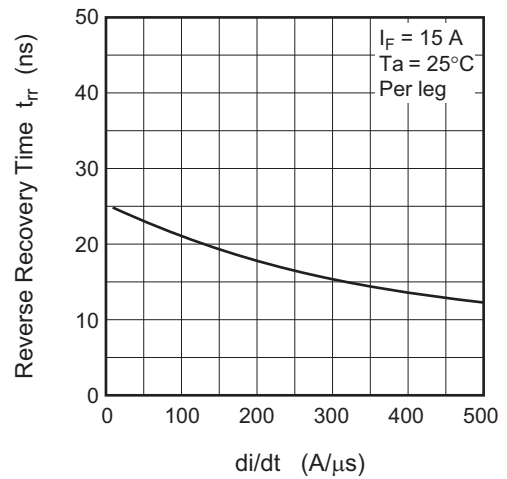
2. Per leg

Main Characteristics

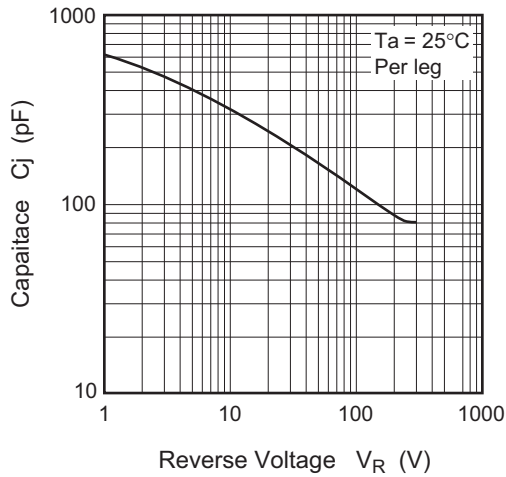
Forward Current vs. Forward Voltage (Typical)



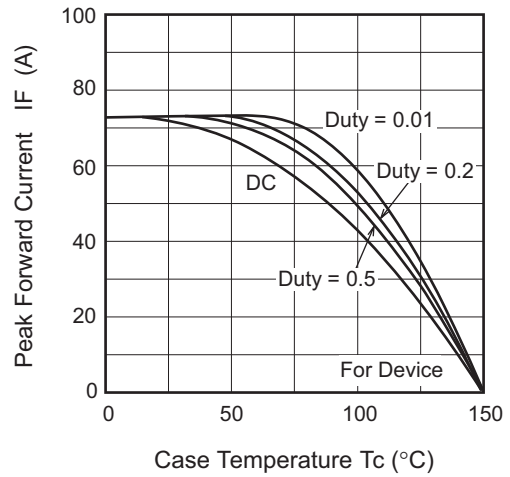
Reverse Recovery Time vs. di/dt (Typical)



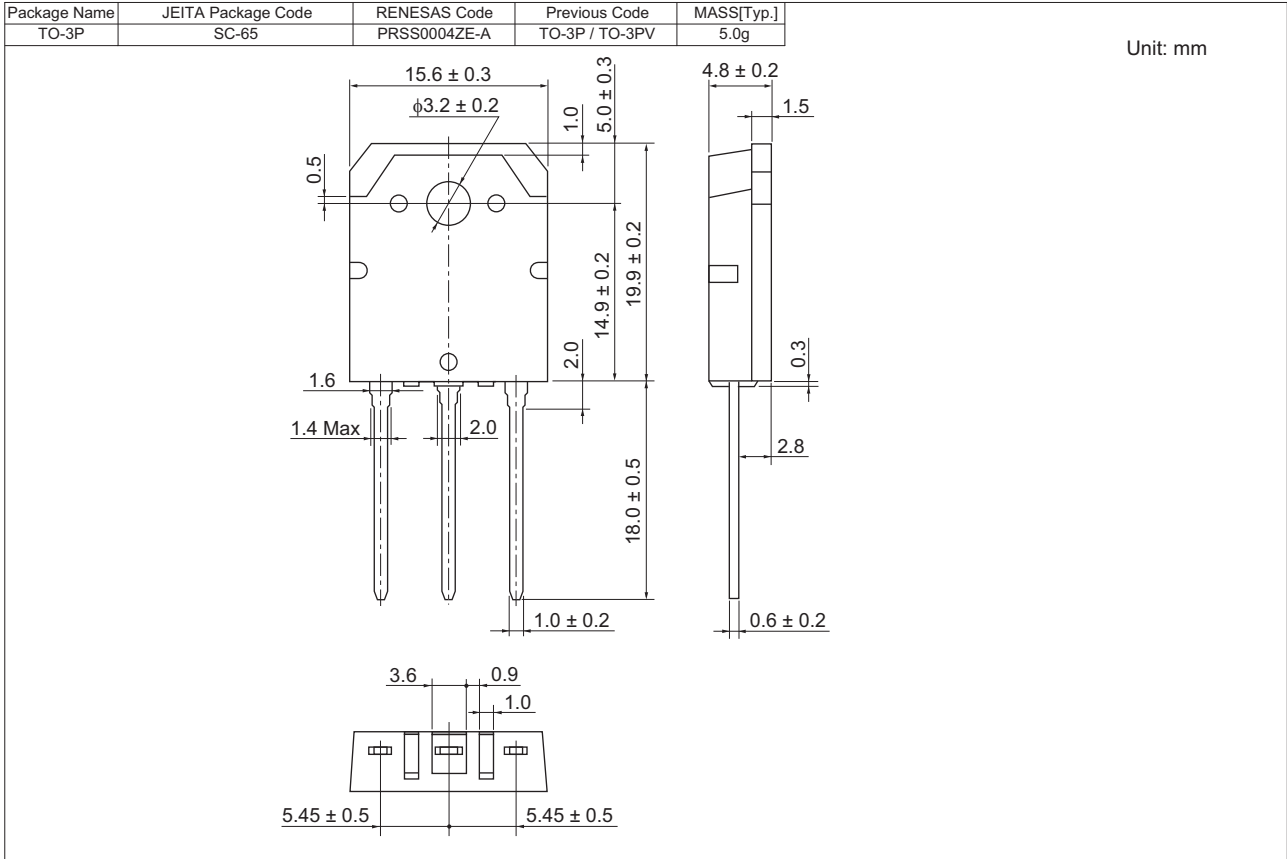
Capacitance vs. Reverse Voltage (Typical)



IF-Tc Characteristics (Typical)



Package Dimensions



Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJS6005WDPK-00#T0	360 pcs	Box (Tube)

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