

RJS6004TDPP-EJ

600V - 10A - Diode
SiC Schottky Barrier Diode

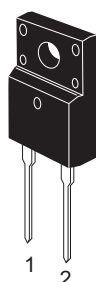
R07DS0896EJ0300
Rev.3.00
Jan 23, 2014

Features

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

Outline

RENESAS Package code: PRSS0002ZA-A
(Package name: TO-220FP-2L)



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Maximum reverse voltage	V_{RM}	600	V
Continuous forward current	I_F	10	A
Peak surge forward current	I_{FSM}	60	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

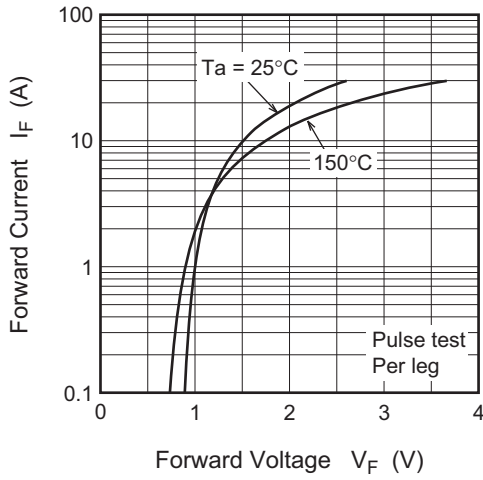
Electrical Characteristics

(Ta = 25°C)

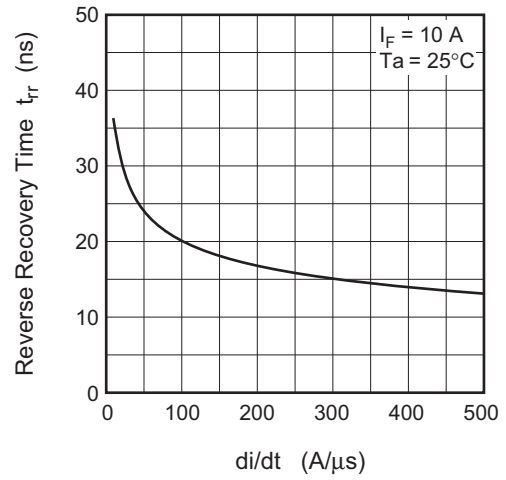
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Forward voltage	V_F	—	1.5	1.8	V	$I_F = 10\text{ A}$
Reverse current	I_R	—	—	10	μA	$V_R = 600\text{ V}$
Reverse recovery time	t_{rr}	—	15	—	ns	$I_F = 10\text{ A}$, $di/dt = 300\text{ A}/\mu\text{s}$

Main Characteristics

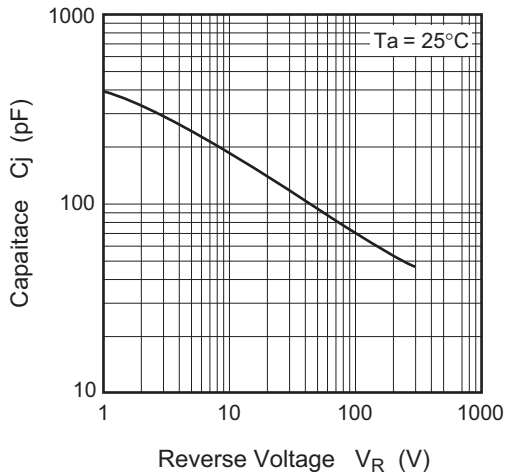
Forward Current vs. Forward Voltage (Typical)



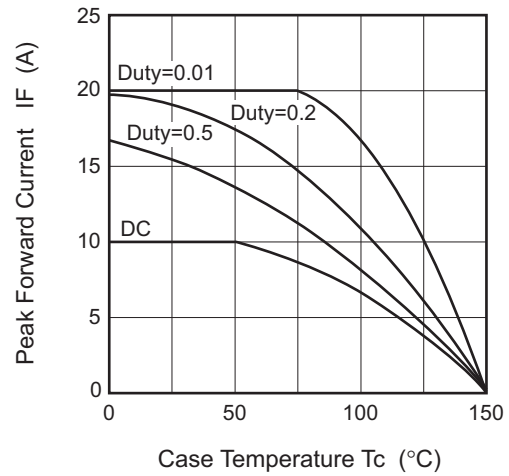
Reverse Recovery Time vs. di/dt (Typical)



Capacitance vs. Reverse Voltage (Typical)



I_F vs. T_c Characteristics (Typical)



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