PCRL75120SQF

Product Preview

1200 V Rectifier Die

Low forward voltage rectifier die for free−wheeling applications. Ideal for use as a reverse diode in IGBT applications.

Features

- Low Vf
- Soft Fast Reverse Recovery Diode

Typical Applications

- Solar Inverters
- UPS Systems

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V_{RRM} = 1200 V
I_F = Limited by $T_{j(max)}$

DIODE DIE

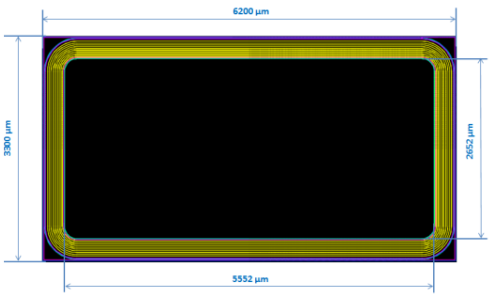
MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Peak Reverse Voltage, T_J = 25°C	V_{RRM}	1200	V
Max Forward Conduction Current	I_F	(Note 1)	A
Operating Junction Temperature	T_J	−55 to +175	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. Depending on thermal properties of assembly.

DIE OUTLINE



MECHANICAL DATA

Parameter	Symbol	Unit
Die Size	6200 × 3300	µm²
Die Thickness	121	µm
Wafer Size	150	mm
Total Pad Size (Anode)	5552 × 2652	µm²
Top Pad metal	3.9 µm AlSi	
Back metal	2 µm AlTiNiAg	
Passivation	1.5 µm HR NIT	
Max possible chips per wafer	610	
Reject Ink dot size	25 mils	
Recommended storage environment: In original container, in dry nitrogen, or temperature of 18−28°C, 30−65% RH	Type: Sawn wafer on tape. Storage time: <3 months	

ORDERING INFORMATION

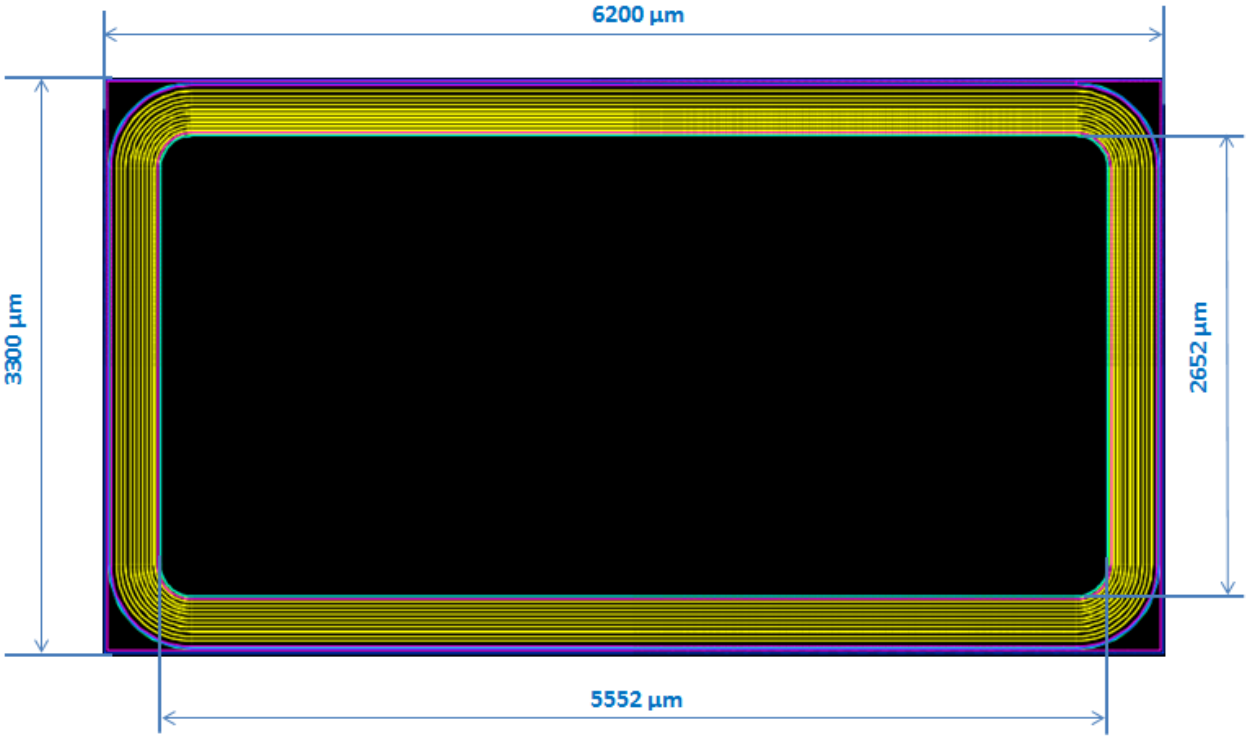
Device	Inking?	Shipping
PCRL75120SQF	Yes	Sawn Wafer on Tape

This document contains information on a product under development. ON Semiconductor reserves the right to change or discontinue this product without notice.

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
STATIC CHARACTERISTICS						
Forward Voltage	I_F = 75 A	V_F	–	3.4	4.0	V
Reverse Voltage	I_R = 500 μA	V_R	1200	–	–	V
Reverse Current	V_R = 1200 V	I_R	–	–	400	μA

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.



(all dimensions in μm)

Figure 1. Die Layout

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
onsemi Website: www.onsemi.com

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