NGTD15R65F2

Fast Switching Rectifier Die

Fast switching low Vf rectifier die for free−wheeling applications.

Features

- Fast Switching
- Low Vf

Typical Applications

- Industrial Motor Control
- Solar PV Inverters

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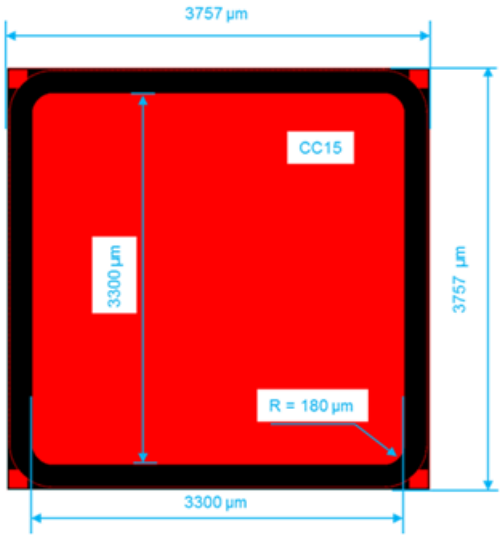
V_{RRM} = 650 V
I_F = Limited by $T_{J(max)}$

DIODE DIE

DIE OUTLINE



MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RRM}	650	V
Max Forward Conduction Current	I_F	(Note 1)	A
Maximum Junction Temperature	T_J	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.

MECHANICAL DATA

Parameter	Value	Unit
Die Size	3757 x 3757	µm²
Die Thickness	10	mils
Wafer Size	150	mm
Top Pad Size (Anode)	3300 x 3300	µm²
Top Metal (Anode)	4 µm AlSi	
Back Metal (Cathode)	2 µm TiNiAg	
Max possible chips per wafer	972	
Passivation frontside	Oxide−Nitride	
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: Bare Wafer in Jar Storage time: < 36 months	Type: Die on tape in ring−pack Storage time: < 3 months

ORDERING INFORMATION

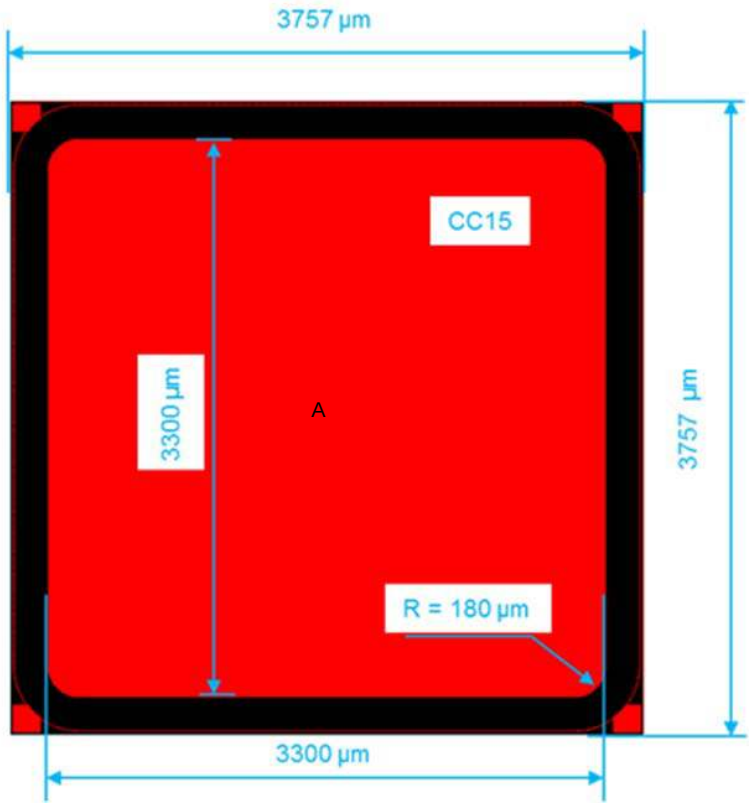
Device	Inking?	Shipping
NGTD15R65F2WP	Yes	Bare Wafer in Jar
NGTD15R65F2SWK	Yes	Sawn Wafer on Tape

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Units
STATIC CHARACTERISTICS						
Forward Voltage	I_F = 75 A, T_J = 25°C	V_F		2.2	2.9	V
Reverse Voltage	I_R = 450 μA, T_J = 25°C	V_R	650			V
Reverse Current	V_R = 650 V, T_J = 25°C	I_R	−1.0		1.0	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.

DIE LAYOUT



A = Anode pad
All dimensions in μm

ADDITIONAL INFORMATION

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

ONLINE SUPPORT: www.onsemi.com/support
For additional information, please contact your local Sales Representative at www.onsemi.com/support/sales