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

MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RRM}	650	V
Max Forward Conduction Current	Ι _Ε	(Note 1)	Α
Maximum Junction Temperature	TJ	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	μm ²		
Top Metal (Anode)	4 μm AIŞi			
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

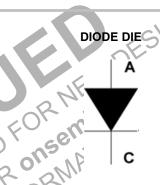
Device	Inking?	Shipping	
NGTD15R65F2WP	Yes	Bare Wafer in Jar	
NGTD15R65F2SWK	Yes	Sawn Wafer on Tape	



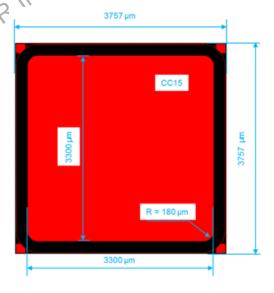
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 V_{RRM} = 650 V I_F = Limited by $T_{J(max)}$



DIE OUTLINE



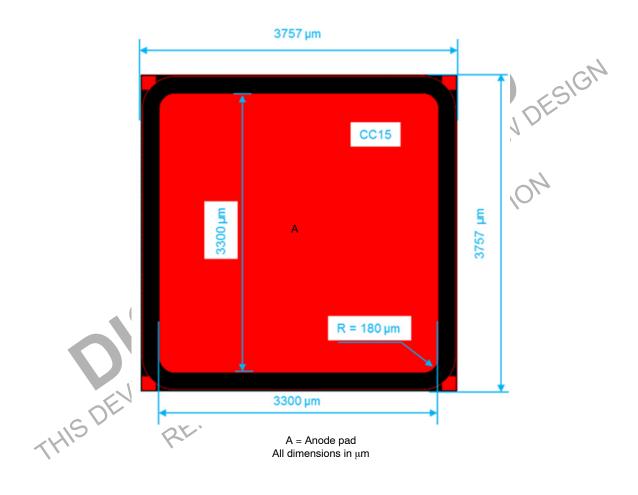
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ELECTRICAL CHARACTERISTICS (T_J = 25°C, unless otherwise specified)

Parameter	Test Conditions	Symbol	Min	Тур	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			٧	
Reverse Current	V _R = 650 V, T _J = 25°C	I _R	-1.0		1.0	μΑ	

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



Further Electrical Characteristic

Switching characteristics and thermal properties are depending strongly on module design and mounting technology and can therefore not be specified for a bare die.

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