



## Absolute Maximum Ratings

(T<sub>j</sub> = 25 °C unless otherwise noted)

Item	Symbol	Ratings	Unit
Maximum reverse voltage	V <sub>RM</sub>	1250	V
Forward current	I <sub>F</sub>	— Notes1	A
Junction temperature	T <sub>j</sub> Notes2	175 Notes2	°C

- Notes: 1. Depends on thermal properties of assembly. T<sub>j</sub> = 175 °C.  
 2. Please use this device in the thermal conditions which the junction temperature does not exceed 175 °C.  
 3. Continuous heavy condition (e.g. high temperature/voltage/current or high variation of temperature) may affect a reliability even if it is within the absolute maximum ratings. Please consider derating condition for appropriate reliability in reference Renesas Semiconductor Reliability Handbook (Recommendation for Handling and Usage of Semiconductor Devices) and individual reliability data.

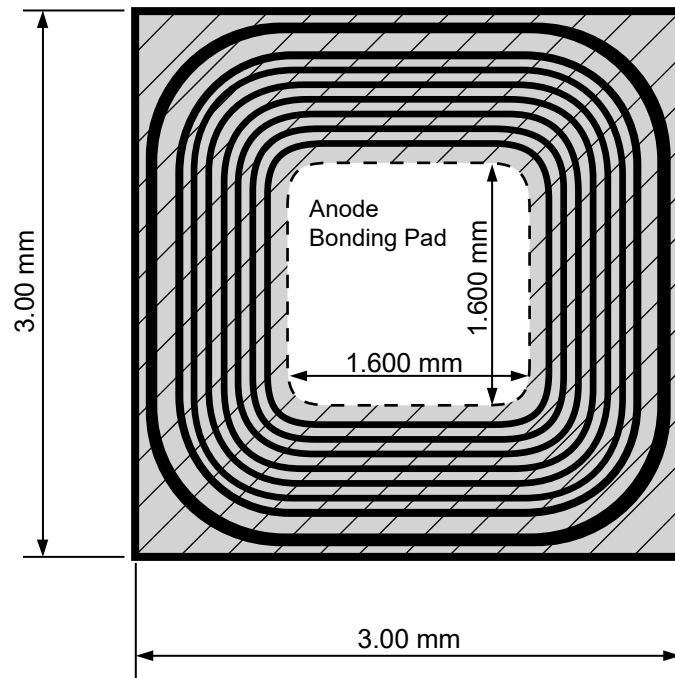
## Electrical Characteristics

(T<sub>j</sub> = 25 °C unless otherwise noted)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Forward voltage	V <sub>F</sub>	—	2.8	3.64	V	I <sub>F</sub> = 25 A Notes5, 6, 7
Reverse current	I <sub>R</sub>	—	—	10	μA	V <sub>CE</sub> = 1250 V Notes4
Reverse voltage	V <sub>R</sub>	1250	—	—	V	I <sub>R</sub> = 100 μA Notes4, 5

- Notes: 4. Tested on wafer  
 5. Pulse test  
 6. Designed target value on Renesas measurement condition. (Not tested)  
 7. Characteristic value on TO-247 package  
 8. Characteristic items prescribed in this document will guarantee the electrical characteristics in chip state but not the characteristic fluctuations or characteristic defects that occur in the processes after assembling.  
 9. Switching characteristics is depending strongly on module design and mounting technology and can therefore not be specified for a bare die.  
 10. Please refer to “R07DS1380 RBN40H125S1FPQ-A0 Data sheet” for packaged product datasheet.

**Die Dimension**



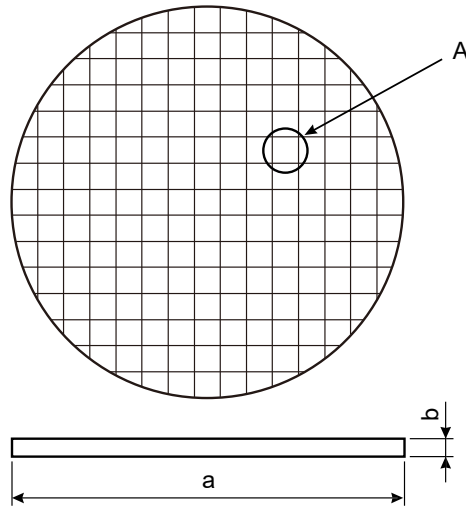
Notes 1:

Illustration	Definition
Part of dotted line	Bonding area
Part of gray	Final passivation

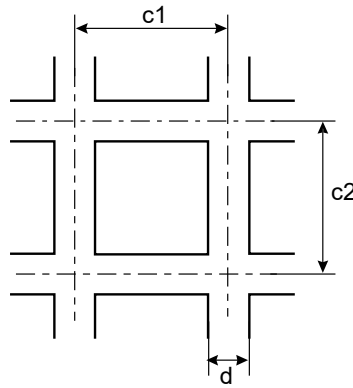
Notes 2: Recognition, target and any other patterns which are not related to FRD operation, may be changed without notice.

### Wafer Dimension

Wafer dimension

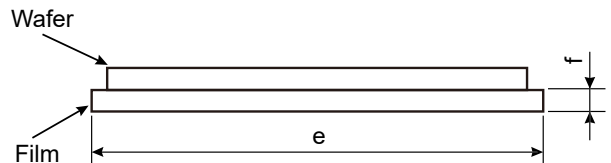
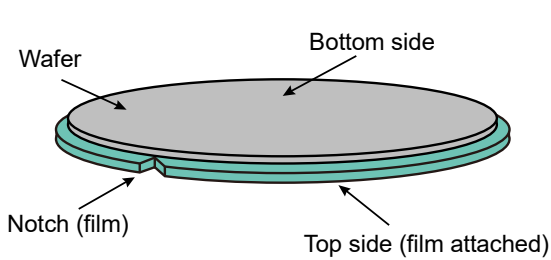


A Enlargement



Item	Symbol	Dimensions (mm)
Wafer diameter	a	193.9
Wafer thickness	b	0.147
Chip pitch	c1	3.00
	c2	3.00
Scribe grid	d	0.076

Outline of film attached Wafer (at delivery)



Film dimension (e) : 200 mm  
 Film thickness (f) : 0.12 mm to 0.16 mm

## Ordering Information

Please contact your Renesas sales representative for sample requests.

<b>Delivery Form</b>	<b>Ordering Part Number</b>	<b>Ordering Quantity Unit</b>
Unsaun wafer	RBC25A125B1UFWA-030#FF0	4941 (3 wafers)
Unsaun wafer	RBC25A125B1UFWA-0F0#FF0	21411 (13 wafers)

Note. The order quantities indicate the maximum quantity of chips for each part number, and the actual quantity of chips shipped will be reduced due to yield. There is also a possibility that the number of wafers may decrease during the manufacturing process. The quantity shipped will be indicated on the label as the number of good chips.

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(Rev. 5.0-1 October 2020)

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