Bulletin I0205J 07/98

International
IOR Rectifier

IR230SG..HCB SERIES

PHASE CONTROL THYRISTORS

- **Junction Size:** **Square 230 mils**
- **Wafer Size:** **4"**
- **V_{RRM} Class:** **600 and 1200 V**
- **Passivation Process:** **Glassivated MESA**
- **Reference IR Packaged Part:** **n. a.**

Major Ratings and Characteristics

Parameters		Units	Test Conditions
V_{TM}	Maximum On-state Voltage	1.3 V	$T_J = 25°C$, $I_T = 25$ A
V_{RRM}	Reverse Breakdown Voltage	600 and 1200 V	$T_J = 25°C$, $I_{RRM} = 100$ µA **(1)**
I_{GT}	Max. Required DC Gate Current to Trigger	60 mA	$T_J = 25°$ C, anode supply = 6 V, resistive load
V_{GT}	Max. Required DC Gate Voltage to Trigger	1.9 V	$T_J = 25°$ C, anode supply = 6 V, resistive load
I_H	Holding Current Range	5 to 150 mA	Anode supply = 6 V, resistive load
I_L	Maximum Latching Current	400 mA	Anode supply = 6 V, resistive load

(1) Nitrogen flow on die edge.

Mechanical Characteristics

Nominal Back Metal Composition, Thickness	Cr - Ni - Ag (1 KA - 4 KA - 6 KA)
Nominal Front Metal Composition, Thickness	Cr - Ni - Ag (1 KA - 4 KA - 6 KA)
Chip Dimensions	230 x 230 mils (see drawing)
Wafer Diameter	100 mm, with std. < 100 > flat
Wafer Thickness	370 µm ± 10 µm
Maximum Width of Sawing Line	130 µm
Reject Ink Dot Size	0.25 mm diameter minimum
Ink Dot Location	See drawing
Recommended Storage Environment	Storage in original container, in dessicated nitrogen, with no contamination

Ordering Information Table

Device Code

IR	230	S	G	12	H	CB
1	2	3	4	5	6	7

1 - International Rectifier Device

2 - Chip Dimension in Mils

3 - Type of Device: S = Solderable SCR

4 - Passivation Process: G = Glassivated MESA

5 - Voltage code: Code x 100 = V_{RRM}

6 - Metallization: H = Silver (Anode) - Silver (Cathode)

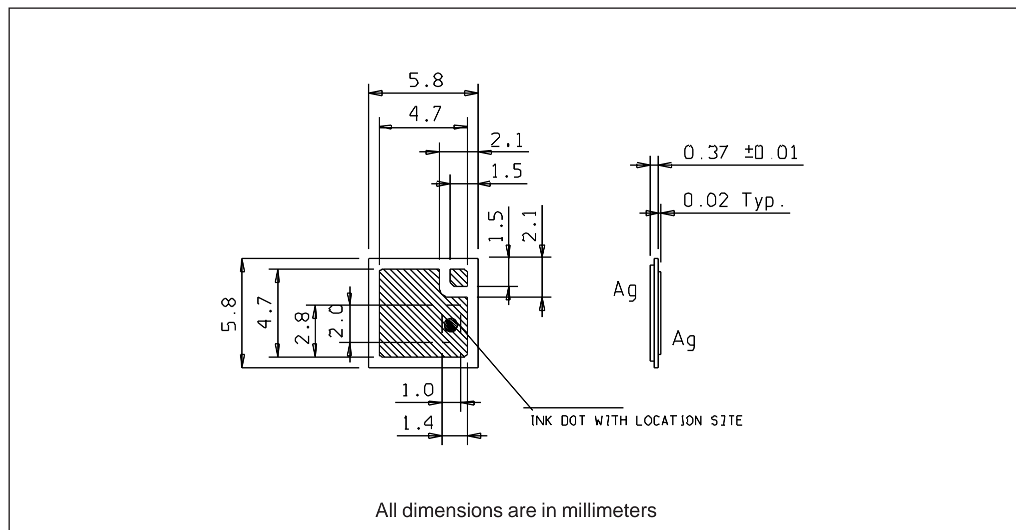
7 - CB = Probed Uncut Die (wafer in box)
None = Probed Die in chip carrier

Available Class

06 = 600 V

12 = 1200 V

Outline Table

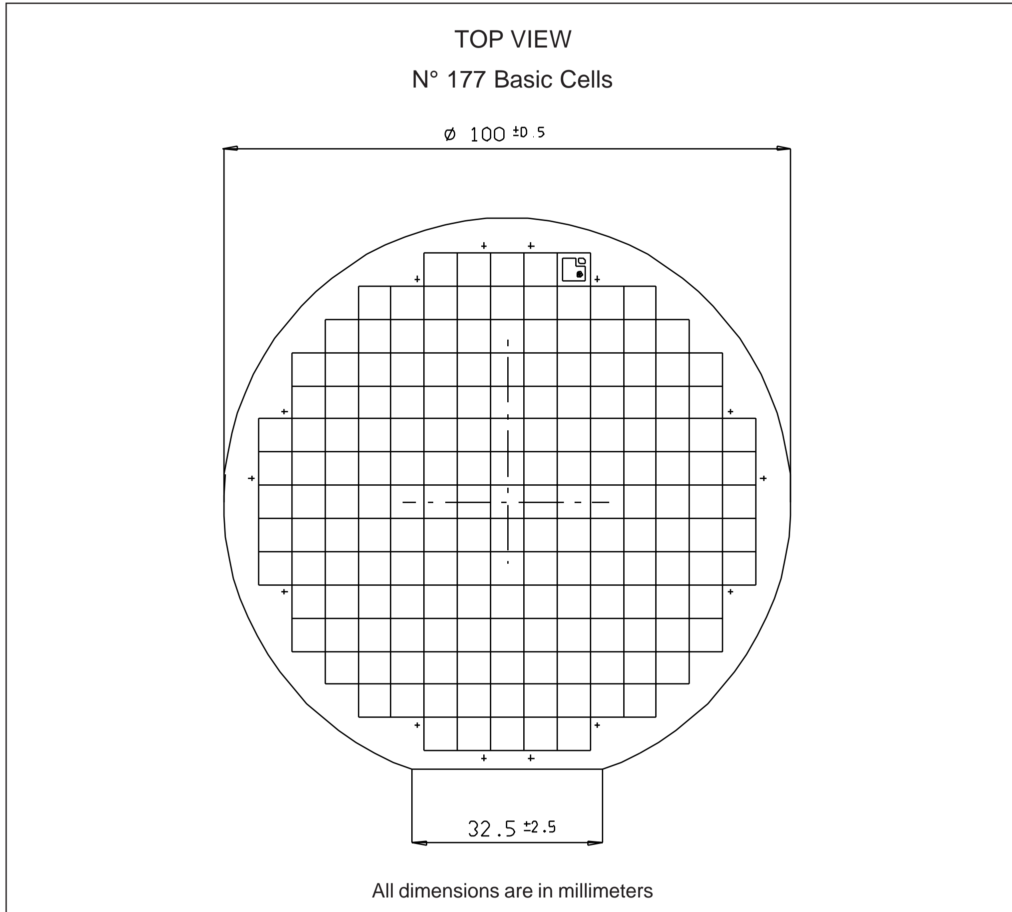


All dimensions are in millimeters

Wafer Layout

TOP VIEW

N° 177 Basic Cells



All dimensions are in millimeters