Bulletin I0143J 01/01

International
IOR Rectifier

S1231

PHASE CONTROL THYRISTORS

- **Junction Size** : **Square 180 mils - IR180SH12H/ S1231**
- **Wafer Size** : **4"**
- **V_{RRM} / V_{DRM} Class** : **1200 V**
- **Passivation Process** : **Glassivated MESA**
- **Reference IR Packaged Part** : **n. a.**

Major Ratings and Characteristics

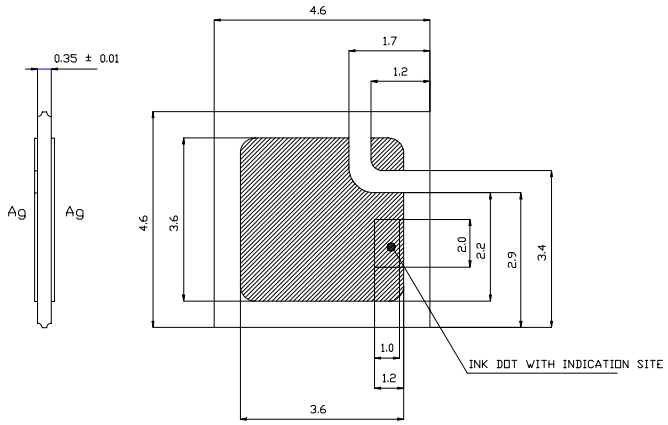
Parameters		Units	Test Conditions
V_{TM}	Typical On-state Voltage	1.3 V	T_J = 25°C, I_T = 25 A
V_{RRM}/V_{DRM}	Reverse Breakdown Voltage	1200 V	T_J = 25°C, I_{RRM} = 300 µA **(1)**
I_{GT}	Required DC Gate Current to Trigger	5 to 45 mA	T_J = 25° C, anode supply = 6 V, resistive load
V_{GT}	Max. Required 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 - 15 KA)
Nominal Front Metal Composition, Thickness	Cr - Ni - Ag (1 KA - 4 KA - 15 KA)
Chip Dimensions	180 x 180 mils (see drawing)
Wafer Diameter	100 mm, with std. < 100 > flat
Wafer Thickness	350 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

Outline Table

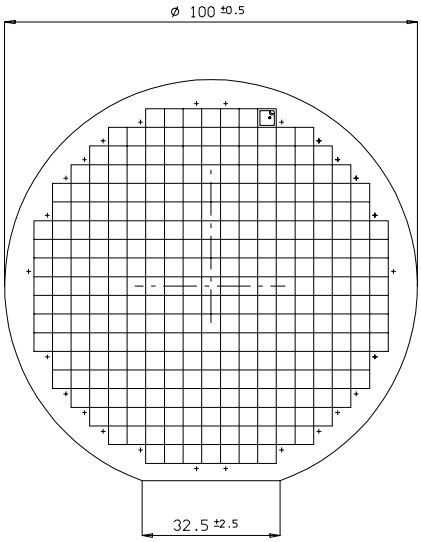


All dimensions are in millimeters

Wafer Layout

TOP VIEW

N° 293 Basic Cells



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