

### 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	$T_J = 25^\circ\text{C}$ , $I_T = 25\text{ A}$
$V_{RRM}/V_{DRM}$ Reverse Breakdown Voltage	1200V	$T_J = 25^\circ\text{C}$ , $I_{RRM} = 300\ \mu\text{A}$ (1)
$I_{GT}$ Required DC Gate Current to Trigger	5 to 45 mA	$T_J = 25^\circ\text{C}$ , anode supply = 6 V, resistive load
$V_{GT}$ Max. Required DC Gate Voltage to Trigger	1.9 V	$T_J = 25^\circ\text{C}$ , 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

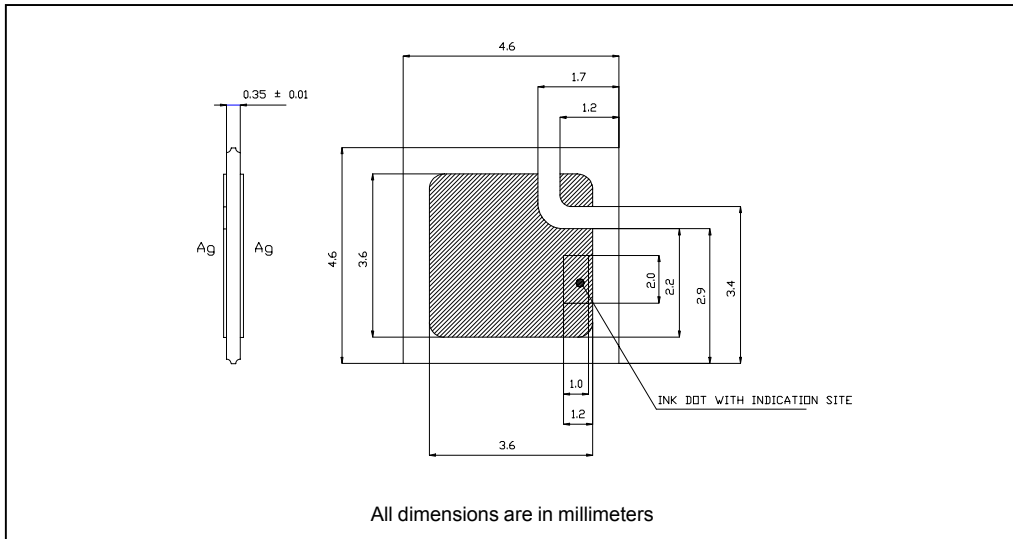
Nominal Back Metal Composition, Thickness	Cr - Ni - Ag (1 KA - 4 KA - 15 KA)
Nominal Front Metal Composition, Thickness	Cr - Ni - Ag (1 KA - 4 KA - 15 KA)
Chip Dimensions	180 x 180 mils (see drawing)
Wafer Diameter	100 mm, with std. < 100 > flat
Wafer Thickness	350 $\mu\text{m} \pm 10\ \mu\text{m}$
Maximum Width of Sawing Line	130 $\mu\text{m}$
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

# S1231

Bulletin I0143J 01/01

International  
**IRF** Rectifier

## Outline Table



## Wafer Layout

