

PHASE CONTROL THYRISTORS

- Junction Size : Square 480 mils
- Wafer Size : 4"
- V_{RRM}/V_{DRM} Class : 600 to 1200 V
- Passivation Process : Glassivated MESA
- Reference IR Packaged Part : IRKT91 Series

Major Ratings and Characteristics

Parameters	Units	Test Conditions
V_{TM} Maximum On-state Voltage	1.2 V	$T_J = 25^\circ\text{C}$, $I_T = 25\text{ A}$
V_{RRM}/V_{DRM} Reverse Breakdown Voltage	600 to 1200 V	$T_J = 25^\circ\text{C}$, $I_{RRM} = 100\text{ }\mu\text{A}$ (1)
I_{GT} Max. Required DC Gate Current to Trigger	110 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	10 to 200 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	100% Al (20 μm)
Chip Dimensions	480 x 480 mils (see drawing)
Wafer Diameter	100 mm, with std. <100> flat
Wafer Thickness	370 $\mu\text{m} \pm 10\text{ }\mu\text{m}$
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

Bulletin I0208J rev. A 01/01

IOR Rectifier

Device Code

IR	480	B	G	12	D	CB
1	2	3	4	5	6	7

- 1** - International Rectifier Device
- 2** - Chip Dimension in Mils
- 3** - Type of Device: B = Wire Bonderable SCR
- 4** - Passivation Process: G = Glassivated MESA
- 5** - Voltage code: Code x 100 = V_{RRM}
- 6** - Metallization: D = Silver (Anode) - Aluminium (Cathode)
- 7** - CB = Probed Uncut Die (wafer in box)
None = Probed Die in chip carrier

Technical drawing of a mechanical part showing top and side views with dimensions and a note.

Top View Dimensions:

- Overall width: 12.2
- Overall height: 12.2
- Left side width: 10.2
- Bottom side width: 10.2
- Top right corner width: 5
- Top right corner height: 2.4
- Inner corner width: 2.4
- Inner corner height: 2.4
- Inner corner radius: 4.5
- Inner corner width: 3.5
- Inner corner height: 3.7

Side View Dimensions:

- Overall height: 0.37 ± 0.01
- Material: AG
- Material: AL

Note: INK DOT WITH INDICATION SITE.

Legend: All dimensions are in millimeters

Wafer Layout

