

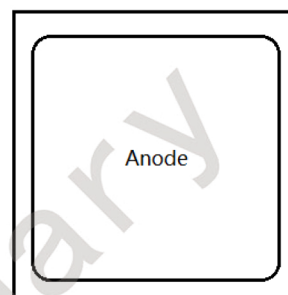
# GSD10200

## 2000V Silicon Carbide Schottky Diode



### Features

- High voltage
- Low forward voltage (VF)
- Positive Temperature Coefficient
- Easy to paralleling
- Halogen-free / RoHS compliant



### Applications

- Solar inverter
- Power factor correction
- Switch mode power supply

### Benefits

- System efficiency improvement
- High-speed switching
- Low heat dissipation requirements
- Reduce size and cost of the system
- High-reliability

### Die Information

Wafer Size	150 mm
Die Size	3600 × 3600 $\mu\text{m}^2$ (exclude SL)
Scribe Line Size	80 $\mu\text{m}$
Die Thickness	175 $\mu\text{m}$
Anode Pad Opening Size;	3030 × 3030 $\mu\text{m}^2$
Gross Die	1200 ea
Top Metallization	Al, 4 $\mu\text{m}$
Back Metallization	Ti/Ni/Ag, 2.5 $\mu\text{m}$
Frontside Passivation	Polyimide
Wire Bond	Al, 10mil×2 (recommend)

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### Electrical Characteristics (Wafer Type)

#### Maximum Ratings<sup>\*2</sup> (T<sub>c</sub>=25°C unless otherwise noted)

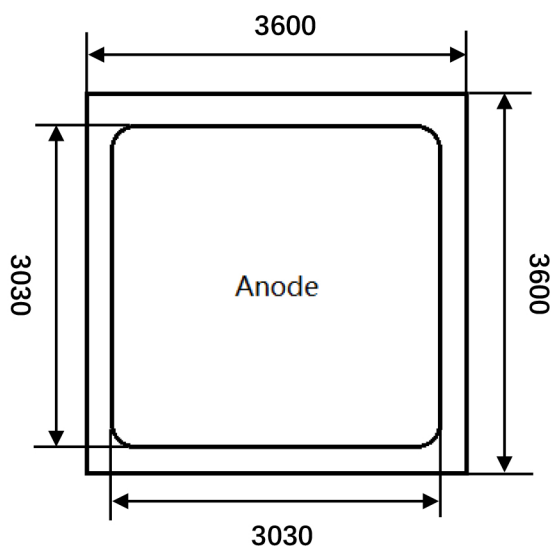
Symbol	Parameter		Value	Unit
V <sub>RRM</sub>	Repetitive peak reverse voltage		2000	V
I <sub>F</sub>	Continuous forward current	T <sub>c</sub> =157°C	10	A
I <sub>FSM</sub>	Non-repetitive forward surge current	t <sub>p</sub> =10ms, Half sine pulse	80	A
I <sub>FRM</sub>	Repetitive Peak Forward Surge Current	t <sub>p</sub> =10ms, Half sine pulse	72	A

\*2. Based on TO-247-2 package

#### Static Electrical Characteristics (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
V <sub>R</sub>	Reverse blocking voltage	I <sub>R</sub> =150uA	2000	-	-	V
I <sub>R</sub>	Reverse current	V <sub>R</sub> =2000V	-	7	150	uA
V <sub>F</sub>	Forward voltage	I <sub>F</sub> =5A	-	1.18	-	V
		I <sub>F</sub> =10A	-	1.41	1.6	V

#### Die Layout (Unit : um)



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