BCO120S100D2

Silicon Carbide SchottkyDiode

1200V, 100A

bestirpower

Features

V_{RRM}	I_F	$T_{J,max}$
1200 V	100 A	175 ℃

- Negligible reverse recovery
- High surge current
- Positive temperature coefficient
- Higher frequency
- Halogen-free / RoHS compliant

Benefits

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

Applications

- Solar inverter
- UPS
- Data Center
- SMPS

Die Configuration

*Cathode : Bottom

Die Mechanical Parameters

Parameter	Typical Value	Unit
Wafer Diameter	6	inch
Die Dimensions (W x L x T)	6228 x 6228 x 200	μm
Anode Metallization	(Al)	
Bottom Cathode Metallization	(Ti/Ni/Ag)	
Frontside Passivation	Polymide	
Recommended Source Bond Wire	Al 20mils x 3	ea
Gross Die (Single chip of wafer)	389	ea

Maximum Ratings (T_C = 25℃) (Note1)

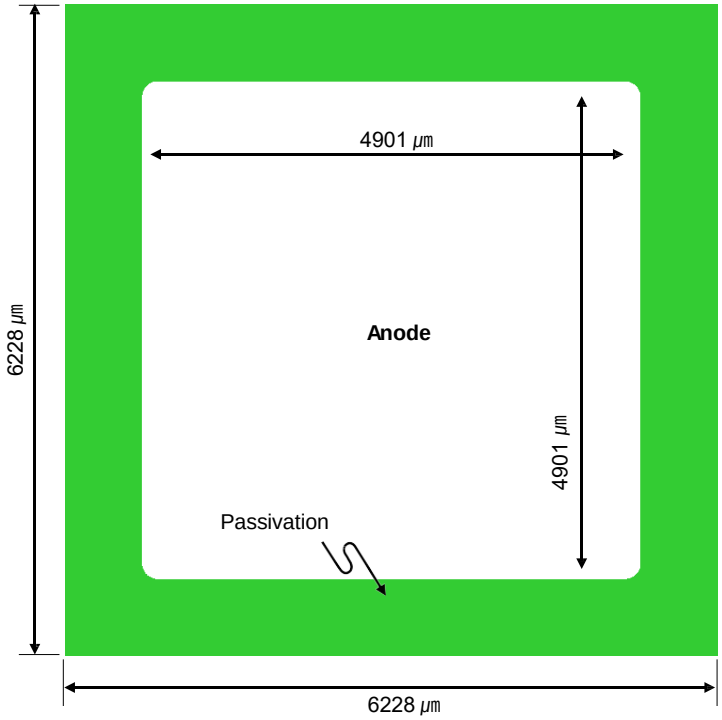
Symbol	Parameter	Test Conditions	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		1200	V
I_F	Continuous Forward Current	T_C = 140℃	100	A
I_{FSM}	Non-repetitive Forward Surge Current	t_p=10ms,Half sine pulse	500	A
I_{FRM}	Repetitive Peak Forward Surge Current	t_p=10ms,Half sine pulse	290	A

Electrical Characteristics (T_C= 25℃) (Note1)

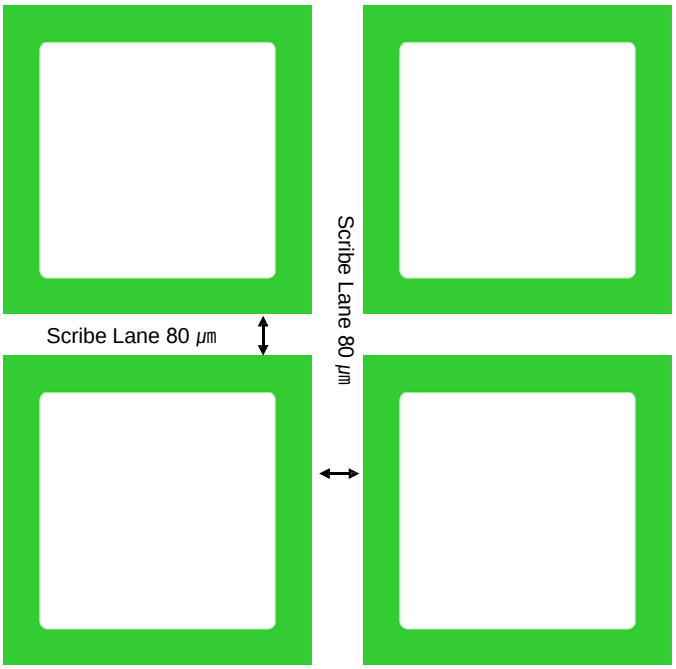
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_R	Reverse Blocking Voltage	I_R = 180 μA, T_C = 25℃	1200	-	-	V
I_R	Reverse Current	V_R = 1200 V, T_C = 25℃	-	35	180	μA
V_F	Forward Voltage	I_F = 100 A, T_C = 25℃	-	1.65	1.80	V

1. Base on TO247-2 package.

Die Layout



Wafer Sawing Information



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