

BCO120S020D1

Silicon Carbide Schottky Diode

1200V, 20A



bestirpower

Description

BCO120S020D1 utilizes bestirpower's advanced silicon carbide diode technology. This technology combines the benefits of excellent low forward voltage and robustness. Consequently, the family is suitable for application requiring high power efficiency

Applications

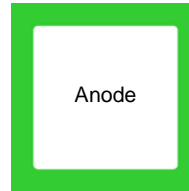
- Solar inverter, UPS
- EV charging station
- Power Factor Correction

Features

V_{RRM}	I_F	$T_{J,max}$	Q_C
1200 V	20 A	175 °C	121 nC

- No reverse recovery current
- Low forward voltage
- 175°C Max junction temperature
- High surge current capability
- Switching behavior independent of temperature

Die Configuration



*Cathode : Bottom



Die Mechanical Parameters

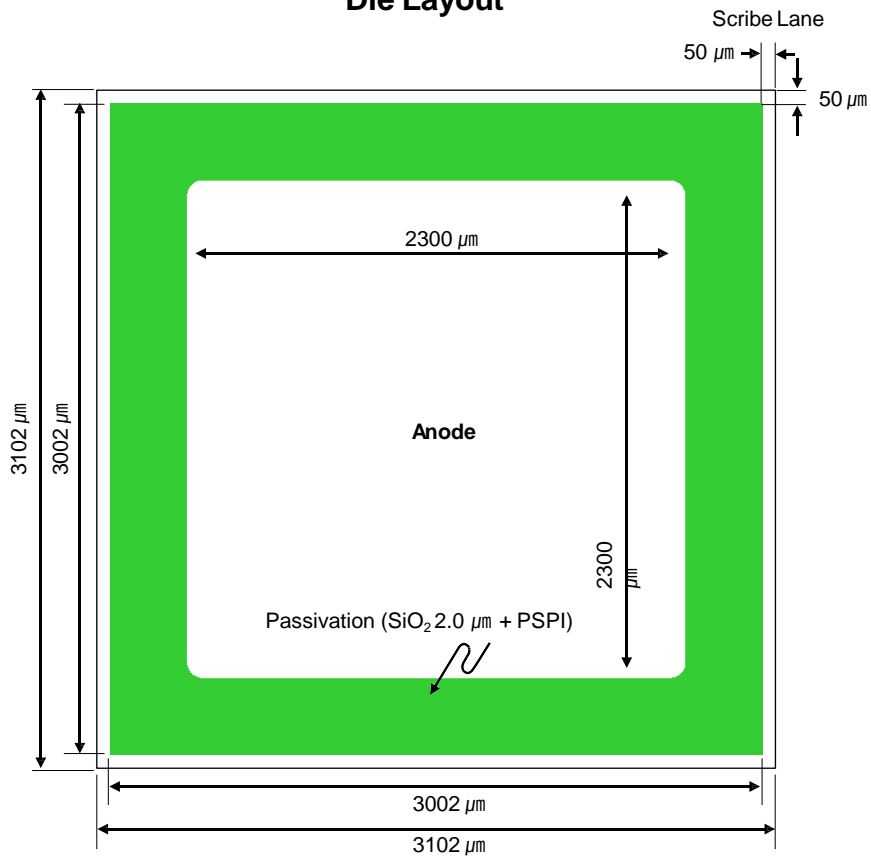
Parameter	Typical Value	Unit
Wafer Diameter	6	inch
Die Dimensions (W x L x T)	3002 x 3002 x 200	μm
Anode Metallization (AlCu)	4	μm
Bottom Cathode Metallization (Ti/Ni/Ag)	0.5	μm
Recommended Source Bond Wire	Al 15mils x 2	ea
Gross Die (Single chip of wafer)	1,560	ea

Electrical Characteristics ($T_J = 25^\circ\text{C}$) (Note1)

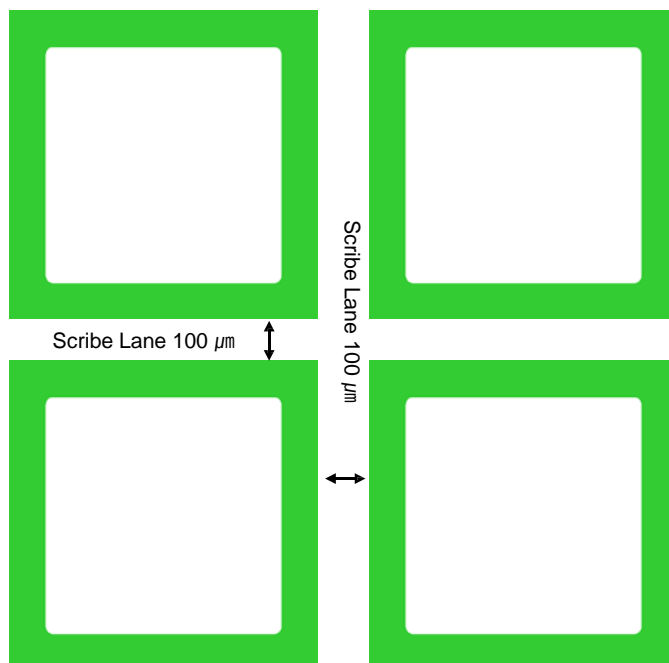
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage	$I_F = 20 \text{ A}, T_C = 25^\circ\text{C}$		1.39	1.70	V
I_R	Reverse Current	$V_R = 1200 \text{ V}, T_C = 25^\circ\text{C}$		-	100	μA

1. Base on TO247 package.

Die Layout



Wafer Sawing Information



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