HCO120S20D1

*e*SiC Silicon Carbide Schottky Diode

1200V, 20A

Description

The 1200V *e*SiC is an advanced Power Master Semiconductor's silicon carbide diode family. This technology combines the benefits of excellent low forward voltage and robustness. Consequently, the *e*SiC family is suitable for application requiring high power efficiency

Features

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

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

Applications

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

Die Configuration

*Cathode : Bottom

Die Mechanical Parameters

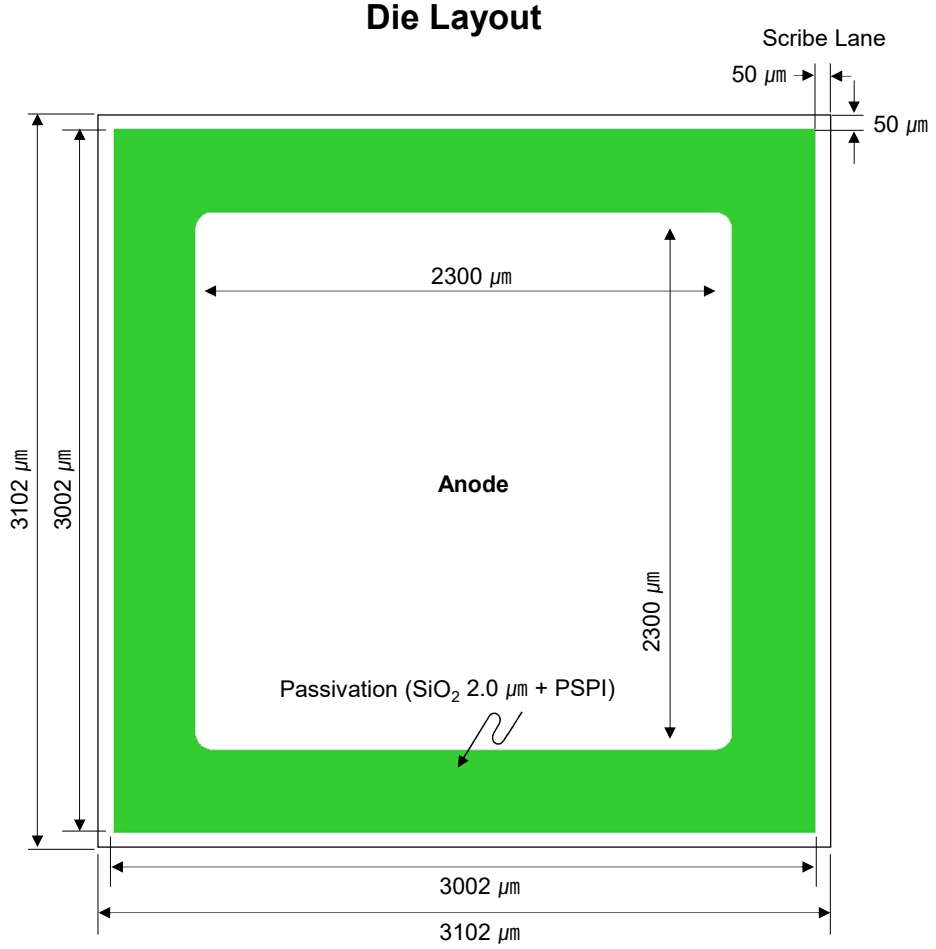
Parameter	Typical Value	Unit
Wafer Diameter	6	inch
Die Dimensions (W x L x T)	3102 x 3102 x 200	μm
Anode Metallization (AlCu)	4	μm
Bottom Cathode Metallization (Ti/Ni/Ag)	0.5	μm
Recommended Source Bond Wire	Al 15mils x 2	ea
Gross Die (Single chip of wafer)	1,610	ea

Electrical Characteristics (T_J = 25℃) (Note1)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage	I_F = 20 A, T_C = 25℃		1.39	1.70	V
I_R	Reverse Current	V_R = 1200 V, T_C = 25℃		-	100	μA

1. Base on TO247 package.

Die Layout



Wafer Sawing Information