

# HCO120S15D1

## eSiC Silicon Carbide Schottky Diode

1200V, 15A

### Description

The 1200V eSiC 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 eSiC family is suitable for application requiring high power efficiency

### Applications

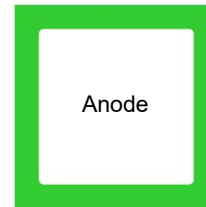
- Solar inverter, UPS
- EV charging station
- Power Factor Correction

### Features

$V_{RRM}$	$I_F$	$T_{J,max}$	$Q_C$
1200 V	15 A	175 °C	92 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

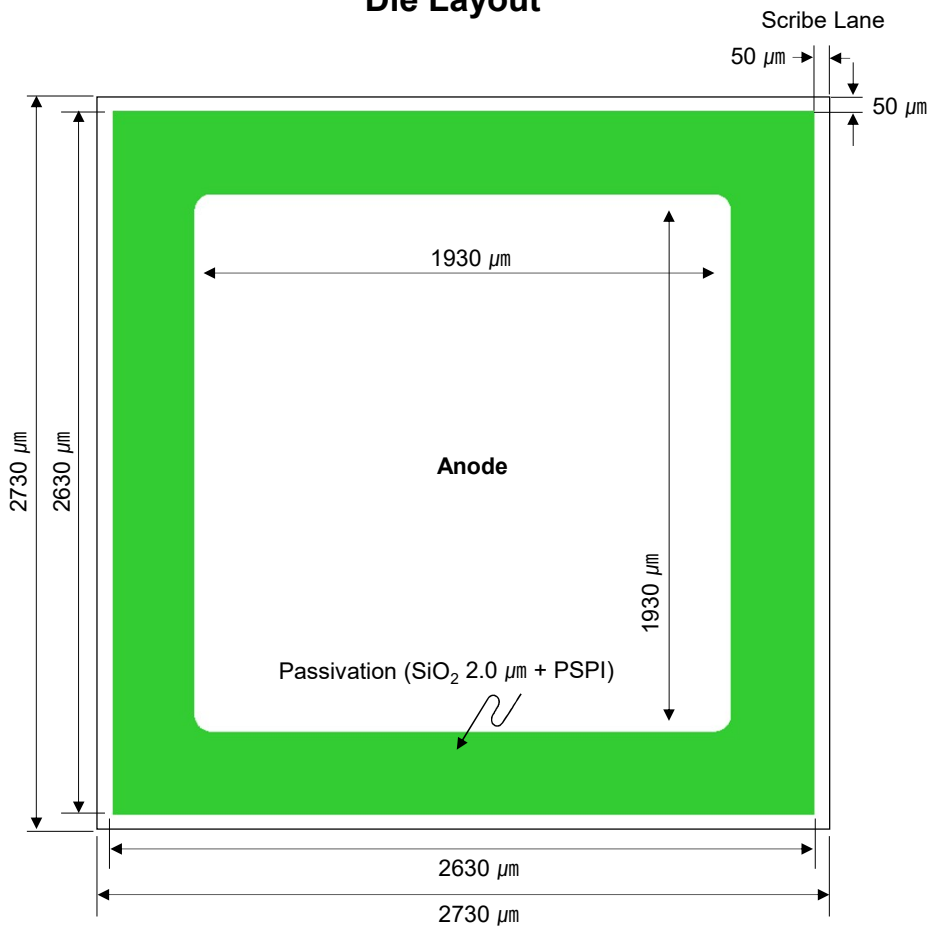
Parameter	Typical Value	Unit
Wafer Diameter	6	inch
Die Dimensions (W x L x T)	2730 x 2730 x 200	$\mu\text{m}$
Anode Metallization (AlCu)	4	$\mu\text{m}$
Bottom Cathode Metallization (Ti/Ni/Ag)	0.5	$\mu\text{m}$
Recommended Source Bond Wire	Al 15mils x 2	ea
Gross Die (Single chip of wafer)	2,092	ea

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_F$	Forward Voltage	$I_F = 15 \text{ A}, T_C = 25^\circ\text{C}$		1.39	1.70	V
$I_R$	Reverse Current	$V_R = 1200 \text{ V}, T_C = 25^\circ\text{C}$		-	100	$\mu\text{A}$

1. Base on TO247 package.

### Die Layout



### Wafer Sawing Information

