

HCO65S12D1

SiC Silicon Carbide Schottky Diode

650 V, 12 A

Features

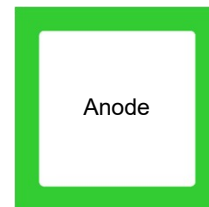
- No reverse recovery current
- Low forward voltage
- 175°C Max junction temperature
- High surge current capability
- Switching behavior independent of temperature

V_{RRM}	I_F	$T_{J,max}$	Q_C
650 V	12 A	175 °C	47 nC

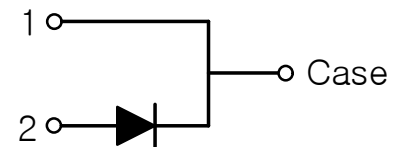
Applications

- Power Factor Correction
- Industrial Power Supplies
- Solar Inverter, UPS

Die Configuration



*Cathode : Bottom



Die Mechanical Parameters

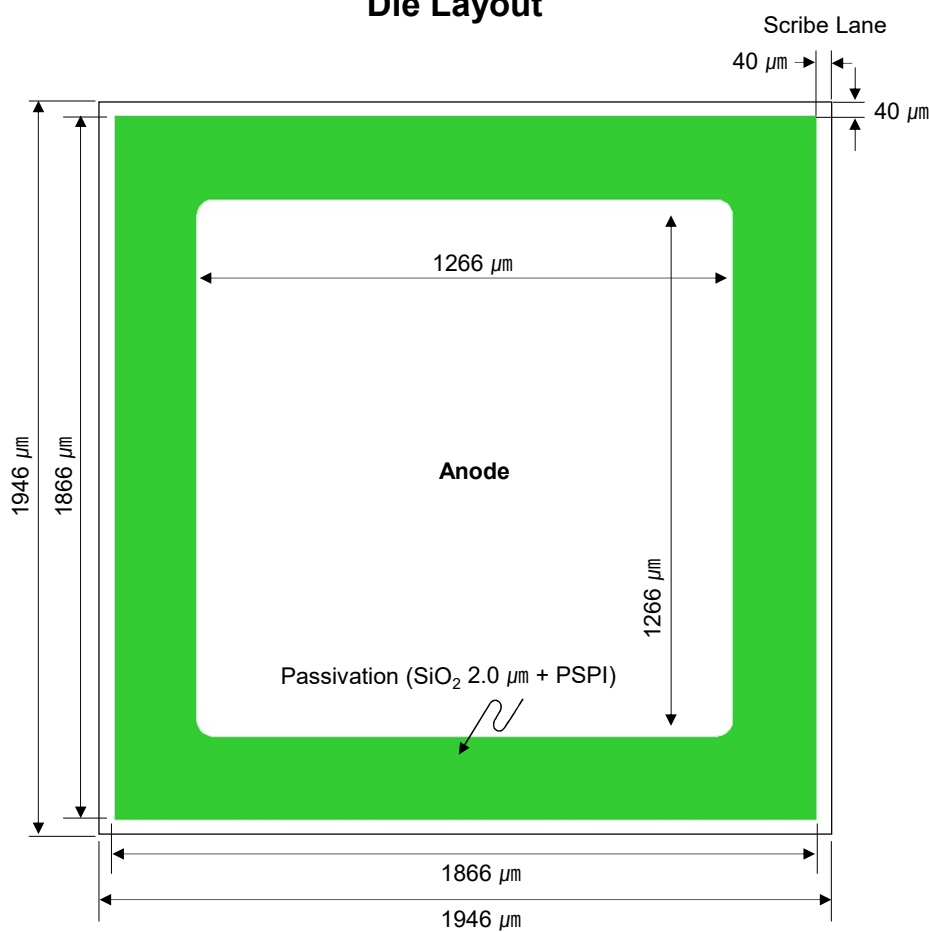
Parameter	Typical Value	Unit
Wafer Diameter	6	inch
Die Dimensions (W x L x T)	1946 x 1946 x 180	μm
Anode Metallization (AlCu)	4	μm
Bottom Cathode Metallization (Ti/Ni/Ag)	0.5	μm
Recommended Source Bond Wire	Al 10mils x 2	ea
Gross Die (Single chip of wafer)	4,194	ea

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage	$I_F = 12 \text{ A}, T_C = 25^\circ\text{C}$		1.30	1.60	V
I_R	Reverse Current	$V_R = 650 \text{ V}, T_C = 25^\circ\text{C}$		-	100	μA

1. Based on TO220 package.

Die Layout



Wafer Sawing Information

