

# HCO65S08D1

## SiC Silicon Carbide Schottky Diode

650 V, 8 A

### Features

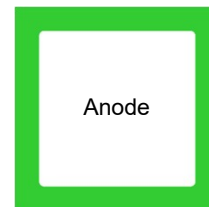
- No reverse recovery current
- Low forward voltage
- 175°C Max junction temperature
- High surge current capability
- Switching behavior independent of temperature

| $V_{RRM}$ | $I_F$ | $T_{J,max}$ | $Q_C$ |
|-----------|-------|-------------|-------|
| 650 V     | 8 A   | 175 °C      | 32 nC |

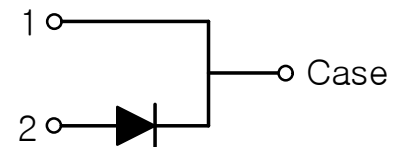
### Applications

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

### Die Configuration



\*Cathode : Bottom



### Die Mechanical Parameters

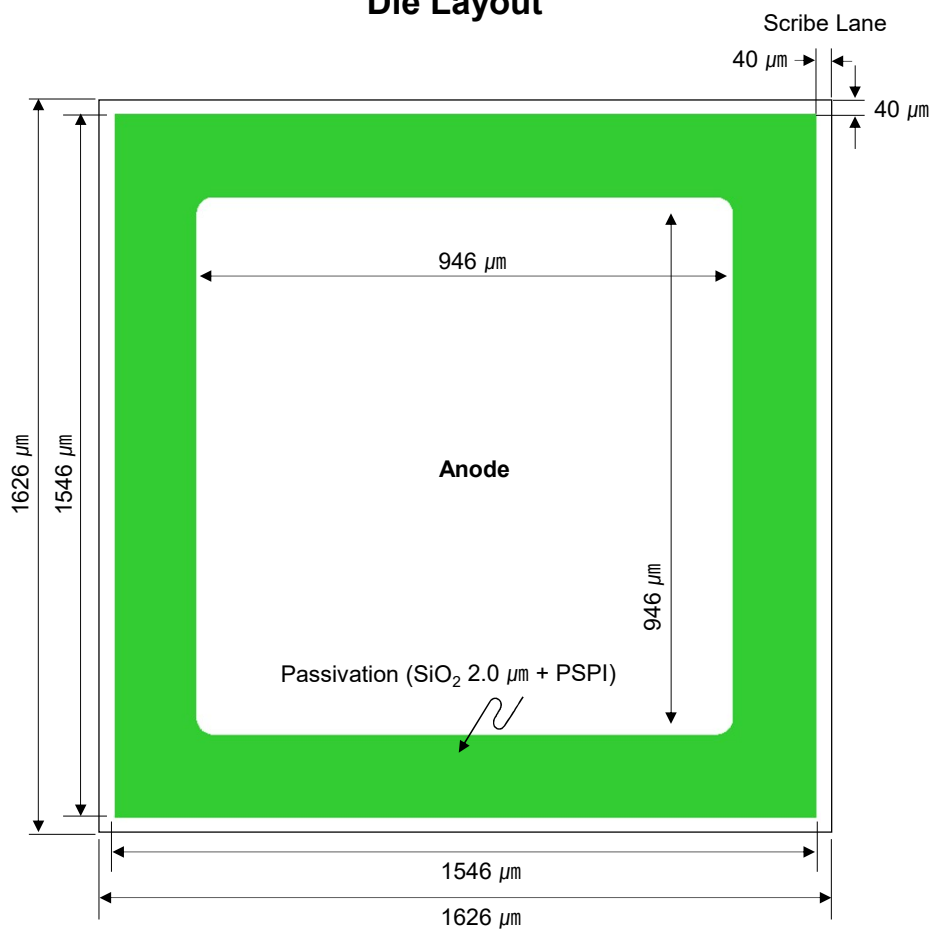
| Parameter                               | Typical Value     | Unit |
|-----------------------------------------|-------------------|------|
| Wafer Diameter                          | 6                 | inch |
| Die Dimensions (W x L x T)              | 1626 x 1626 x 180 | μm   |
| Anode Metallization (AlCu)              | 4                 | μm   |
| Bottom Cathode Metallization (Ti/Ni/Ag) | 0.5               | μm   |
| Recommended Source Bond Wire            | Al 6mils x 2      | ea   |
| Gross Die (Single chip of wafer)        | 6,030             | ea   |

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

| Symbol | Parameter       | Test Conditions                                  | Min | Typ  | Max  | Unit |
|--------|-----------------|--------------------------------------------------|-----|------|------|------|
| $V_F$  | Forward Voltage | $I_F = 8 \text{ A}$ , $T_C = 25^\circ\text{C}$   |     | 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

