

HCO65S20D1

eSiC Silicon Carbide Schottky Diode

650 V, 20 A

Features

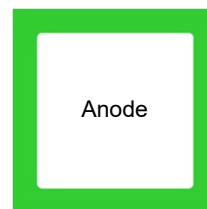
- No reverse recovery current
- Low forward voltage
- 175°C Max junction temperature
- High surge current capability
- Switching behavior independent of temperature

| V_{RRM} | I_F | $T_{J,max}$ | Q_C |
|-----------|-------|-------------|-------|
| 650 V | 20 A | 175 °C | 77 nC |

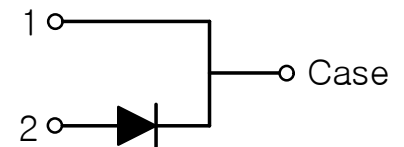
Applications

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

Die Configuration



*Cathode : Bottom



Die Mechanical Parameters

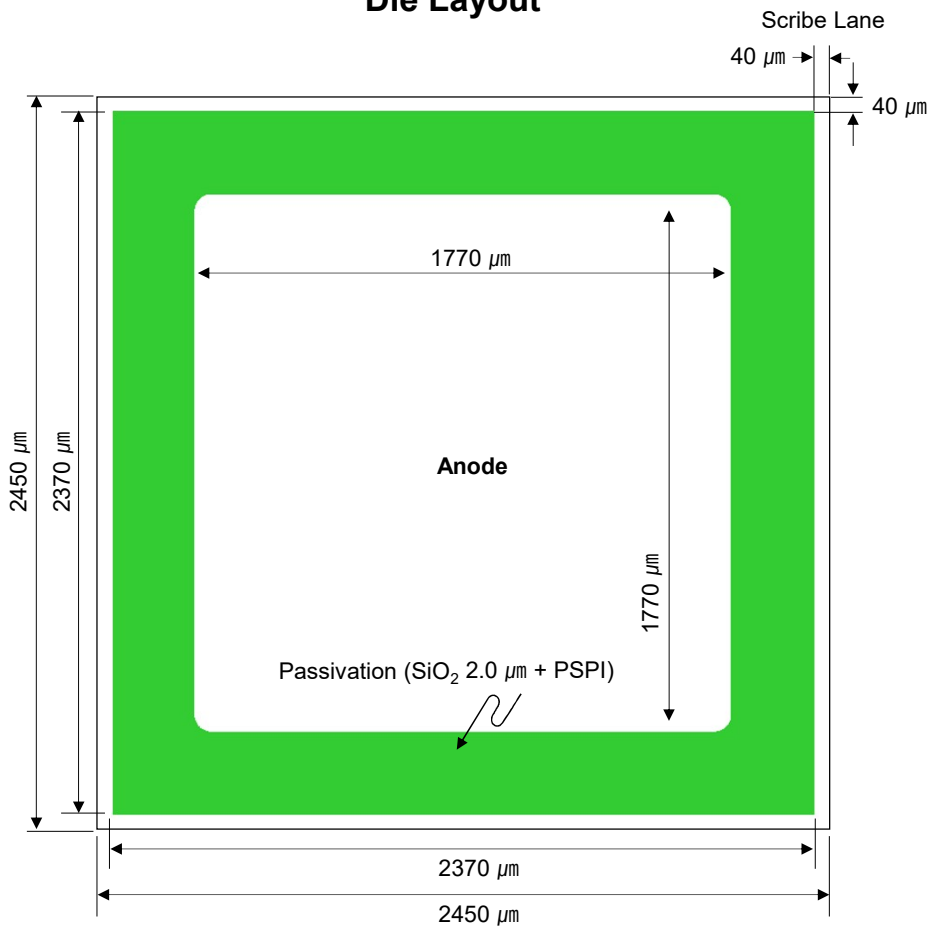
| Parameter | Typical Value | Unit |
|---|-------------------|------|
| Wafer Diameter | 6 | inch |
| Die Dimensions (W x L x T) | 2450 x 2450 x 180 | μm |
| Anode Metallization (AlCu) | 4 | μm |
| Bottom Cathode Metallization (Ti/Ni/Ag) | 0.5 | μm |
| Recommended Source Bond Wire | Al 16mils x 2 | ea |
| Gross Die (Single chip of wafer) | 2,626 | ea |

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

| Symbol | Parameter | Test Conditions | Min | Typ | Max | Unit |
|--------|-----------------|--|-----|------|------|------|
| V_F | Forward Voltage | $I_F = 20 \text{ A}$, $T_C = 25^\circ\text{C}$ | | 1.30 | 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

