

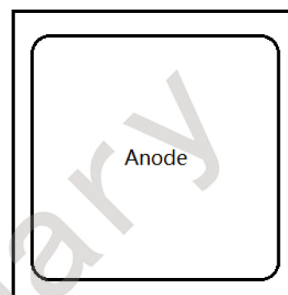
GSD04120

1200V Silicon Carbide Schottky Diode



Features

- Negligible reverse recovery
- High surge current
- Positive temperature coefficient
- Higher frequency
- Halogen-free / RoHS compliant



Applications

- SMPS
- Solar inverter
- Data Center
- UPS

Benefits

- High-speed switching
- Low heat dissipation requirements
- Reduce size and cost of the system
- High-reliability

Die Information

| | |
|-------------------------|--|
| Wafer Size | 150 mm |
| Die Size | 1660 × 1660 μm^2 (exclude SL) |
| Scribe Line Size | 60 μm |
| Die Thickness | 175 μm |
| Anode Pad Opening Size; | 1333 × 1333 μm^2 |
| Gross Die | 5380 ea |
| Top Metallization | Al, 4 μm |
| Back Metallization | Ti/Ni/Ag, 2.5 μm |
| Frontside Passivation | Polyimide |
| Wire Bond | Al, 10mil×1 (recommend) |

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Electrical Characteristics (Wafer Type)

Maximum Ratings^{*2} (Tc=25°C unless otherwise noted)

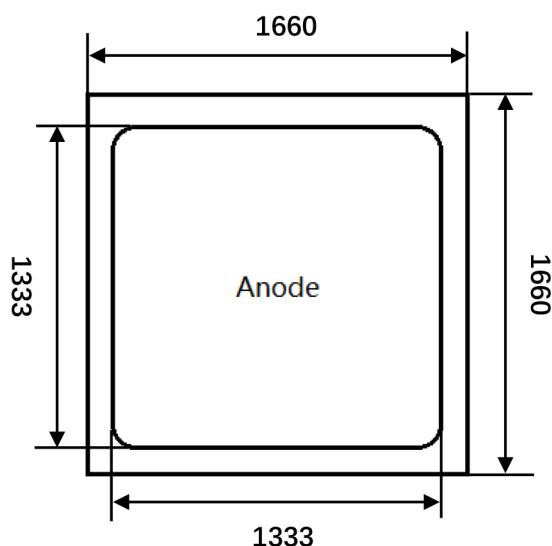
| Symbol | Parameter | | Value | Unit |
|-----------|---------------------------------------|------------------------------|-------|------|
| V_{RRM} | Repetitive peak reverse voltage | | 1200 | V |
| I_F | Continuous forward current | Tc=162°C | 4 | A |
| I_{FSM} | Non-repetitive forward surge current | $t_p=10ms$, Half sine pulse | 32 | A |
| I_{FRM} | Repetitive Peak Forward Surge Current | $t_p=10ms$, Half sine pulse | 31 | A |

*2. Based on TO-220-2 package

Static Electrical Characteristics (Tc=25°C unless otherwise noted)

| Symbol | Parameter | Test Conditions | Value | | | Unit |
|--------|--------------------------|-----------------|-------|------|------|---------|
| | | | Min. | Typ. | Max. | |
| V_R | Reverse blocking voltage | $I_R=100\mu A$ | 1200 | - | - | V |
| I_R | Reverse current | $V_R=1200V$ | - | 1.0 | 50 | μA |
| V_F | Forward voltage | $I_F=4A$ | - | 1.42 | 1.65 | V |

Die Layout (Unit : μm)



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Announcement

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