

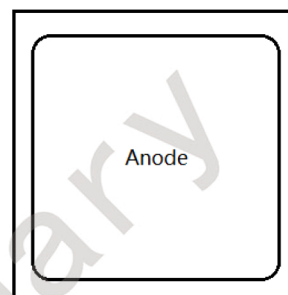
GSD50060

650V Silicon Carbide Schottky Diode



Features

- High surge current capability
- No reverse recovery
- Positive temperature coefficient
- Temperature-Independent switching behavior
- Halogen-free / RoHS compliant



Applications

- Solar inverter
- Power factor correction
- Industrial power supplies
- Switch mode power supply

Benefits

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

Die Information

Wafer Size	150 mm
Die Size	3532 × 3532 μm^2 (exclude SL)
Scribe Line Size	80 μm
Die Thickness	175 μm
Anode Pad Opening Size;	3282 × 3282 μm^2
Gross Die	1194 ea
Top Metallization	Al, 4 μm
Back Metallization	Ti/Ni/Ag, 2.5 μm
Frontside Passivation	Polyimide
Wire Bond	Al, 20mil×2 (recommend)

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Electrical Characteristics (Wafer Type)

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

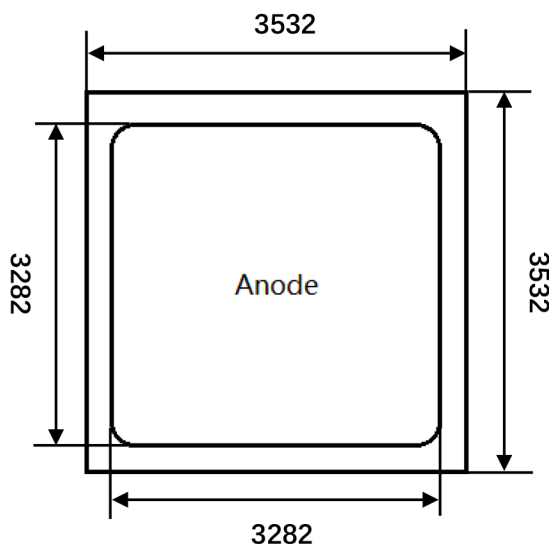
Symbol	Parameter		Value	Unit
V _{RRM}	Repetitive peak reverse voltage		650	V
I _F	Continuous forward current	T _c =135°C	50	A
I _{FSM}	Non-repetitive forward surge current	t _p =10ms, Half sine pulse	270	A
I _{FRM}	Repetitive Peak Forward Surge Current	t _p =10ms, Half sine pulse	240	A

*2. Based on TO-247-2 package

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

Symbol	Parameter	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
V _R	Reverse blocking voltage	I _R =100uA	650	-	-	V
I _R	Reverse current	V _R =650V	-	8	100	uA
V _F	Forward voltage	I _F =25A	-	1.23	-	V
		I _F =50A	-	1.49	1.7	V

Die Layout (Unit : um)



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Announcement

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