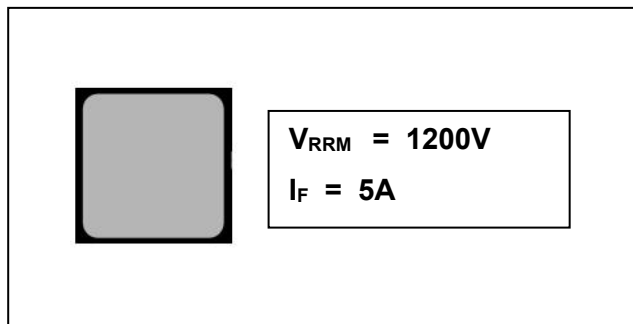


# SD4-1200-S005AB

## SiC Schottky Power Rectifier Chip



### Description

- 1200-Volt Schottky Rectifier
- Zero Reverse Recovery
- Zero Forward Recovery
- High-Frequency Operation
- Temperature-Independent Switching Behavior
- Extremely Fast Switching
- Positive Temperature Coefficient on VF

Part Number	Die Size	Anode	Cathode
SD4-1200-S005AB	1.6×1.6 mm <sup>2</sup>	Al	Ag

### Maximum Ratings:

Parameter	Symbol	Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	1200	V
Surge Peak Reverse Voltage	$V_{RSM}$	1200	V
DC Peak Blocking Voltage	$V_R$	1200	V
Maximum DC Current	$I_F$	5	A
Non-Repetitive Forward Surge Current	$I_{FSM}$	46	A
Operating Junction and Storage Temperature	$T_J, T_{stg}$	-55 to +175	°C
Maximum Processing Temperature	$T_{Proc}$	325	°C

**Technical Data**  
**Data Sheet D0313, REV.-**

**Electrical Characteristics(T=25°C unless otherwise specified):**

Parameter	Symbol	Condition	Typ.	Max.	Units
DC Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 5A, T <sub>J</sub> =25°C	1.65	1.8	V
		I <sub>F</sub> = 5A, T <sub>J</sub> =175°C	2.2	3.0	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 1200 V, T <sub>J</sub> =25°C	4	40	uA
		V <sub>R</sub> = 1200 V, T <sub>J</sub> =175°C	10	80	uA
Junction Capacitance	C <sub>T</sub>	V <sub>R</sub> =0V, T <sub>J</sub> =25°C, f=1MHz	290	-	C <sub>T</sub>
Reverse Recovery Charge	Q <sub>c</sub>	I <sub>F</sub> = 5A, di/dt = 200A/μs V <sub>R</sub> = 800 V, T <sub>J</sub> =25°C	22.8	-	Q <sub>c</sub>
Capacitance Stored Energy	E <sub>c</sub>	V <sub>R</sub> = 800 V, T <sub>J</sub> =25°C	11.71	-	E <sub>c</sub>

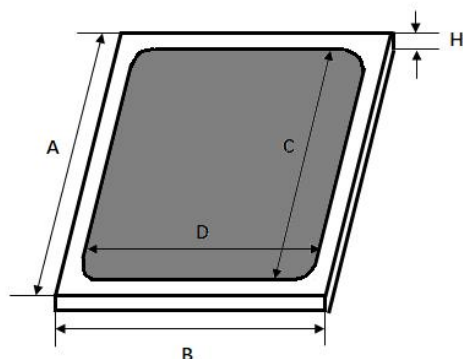
\* Pulse width < 300 μs, duty cycle < 2%

**Mechanical Parameters:**

Parameter	Typ.	Unit
Die Size	1.60×1.60	mm
Anode Pad opening	0.90×0.90	mm
Thickness	350±10%	μm
Wafer Size	152.4	mm
Anode Metalization (Al)	4	μm
Cathode Metalization (Ag)	0.4	μm
Frontside Passivation	Polyimide	

**Technical Data**  
**Data Sheet D0313, REV.-**

**Dimension**



symbol	Dimension +/- 10%
A	1.60 mm
B	1.60 mm
C	0.90 mm
D	0.90 mm
H	350 um

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