- 1.2kv schottky Rectifier
- Zero Reverse Recovery Current / Zero forward recovery
- High-Frequency Operation
- Temperature-Independent Switching Behavior
- Low forward voltage
- Positive Temperature Coefficient on V_F



S1D020120B	3.082 x 3.082	Al	Ag

		(T_C = 135)		
S1D020120B	1200V	29A	110nC	175

(Tc = 25°C unless otherwise specified)

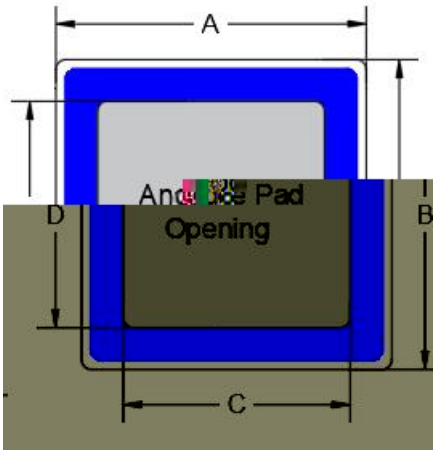
V_{RRM}	Repetitive Peak Reverse Voltage	1200	V	-	
V_{RSM}	Surge Peak Reverse Voltage	1300	V	-	
V_R	DC Peak Reverse Voltage	1200	V	-	
I_F	Continuous Forward Current	61 29 20	A	Tc = 25˚C Tc = 135˚C Tc = 153˚C	Note1
I_{FSM}	Non-Repetitive Peak Forward Surge Current	180	A	Tc = 25 tp = 10ms Half Sine Pulse	
T_{stg} ,T_J	Operating Junction Range	-55 to +175		-	

Note1. Assumes $R_{\theta JC}$ Thermal Resistance of 0.56 ˚C/W or less

(Tc = 25°C unless otherwise specified)

V_F	Forward Voltage	1.38 1.85	1.6 2.2	V	I_F = 20A T_J = 25 I_F = 20A T_J = 175	Fig.1
I_R	Reverse Current	1 10	100 200	μA	V_R = 1200V T_J = 25 V_R = 1200V T_J = 175	Fig.2
Q_c	Total Capacitive Charge	110	-	nC	V_R = 800V I_F = 20A di/dt = 200A/μs T_J = 25	Fig.4
C	Total Capacitance	2120 104 76	-	pF	V_R = 0V T_J = 25 f = 1MHz V_R = 400V T_J = 25 f = 1MHz V_R = 800V T_J = 25 f = 1MHz	Fig.3
E_C	Capacitance Stored Energy	60	-	μJ	V_R = 800V	Fig.5

Die Size	3.082 * 3.082	mm
Anode Pad Opening	2.154 * 2.154	mm
Thickness	175	μm
Anode Metallization (Al)	4	μm
Cathode Metallization (Ag)	1	μm



Symbol	Dimension / mm
A	3.082
B	3.082
C	2.154
D	2.154

		— —
		— —

1.
The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/ EC (RoHS2), as implemented January 2, 2013.

2.
REACh substances of high concern (SVHCs) information is available æfe: Ç1 ardduc/n

7. Except as otherwise explicitly approved by Sichain in a written document signed by authorized representatives of Sichain, Sichain' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.

8. For use of our products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a Sichain representatives, for example but not limited to: transportation equipment,primary communication equipment,traffic lights,fire/crime prevention, safety equipment, medical systems, and power transmission systems.