S1P04R120HBH-B Preliminary

1200V / 400A All-Silicon Carbide MOSFET Half-Bridge Module

Features

Electrical features

V_{DSS} = 1200V

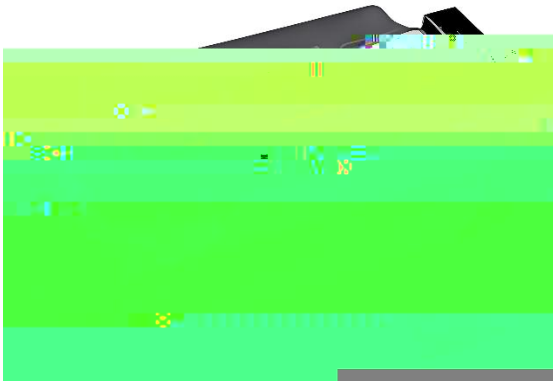
$I_{D\ nom}$ = 400A

High-speed Switching Possible

High Power Density

High Frequency Operation

Ultra-low Losses



Applications

DC/DC converters

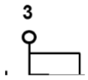
UPS system

High power converters

Photovoltaics, wind power generation

Induction heating equipment

Electrified vehicle traction inverter



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Datasheet V01_00

http://www.sichainsemi.com 2025.01.04

1 Maximum ratings

Table 1 Maximum rating (Tc = 25°C unless otherwise specified)

Symbol	Parameter	Value	Unit	Test Conditions	Note

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Datasheet V01_00

http://www.sichainsemi.com 2025.01.04

3 Electrical characteristics

4 Package drawing

5 Test conditions

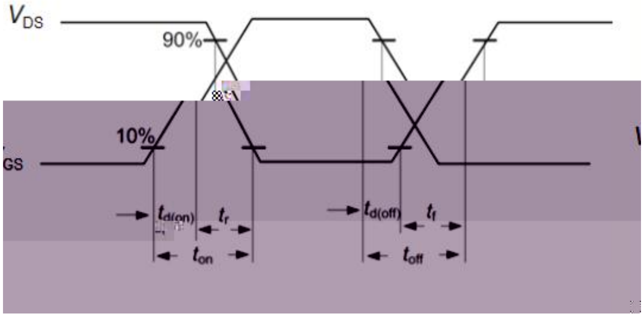

Figure A. Definition of switching times

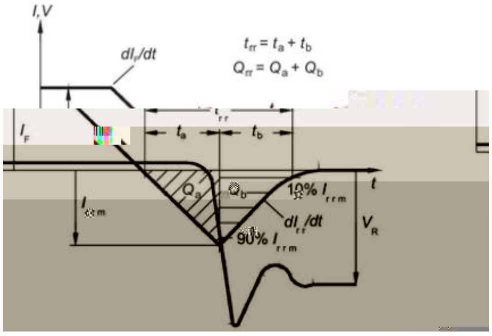

Figure B. Definition of body diode switching characteristics

Revision history

Document version	Date of release	Description of changes	
V01_00	2025-01-04		

Attention

1. RoHS compliance

2

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.

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