

Product Preview

The NXH500B100H7F5SHG is a power module in F5BP package containing two independent flying capacitor boost converters. The integrated field stop trench IGBTs and Si/SiC Diodes provide lower conduction and switching losses, enabling designers to achieve high efficiency, high power density and superior reliability.

Features

- Flying Capacitor Boost Module
- 1000V Field Stop 7 IGBTs and 1200V SiC Diodes
- Low Inductive Layout
- Solder Pins
- Integrated NTC Thermistor
- This is a Pb-Free and Halide Free Device

Typical Applications

- Solar Inverter
- Energy Storage System

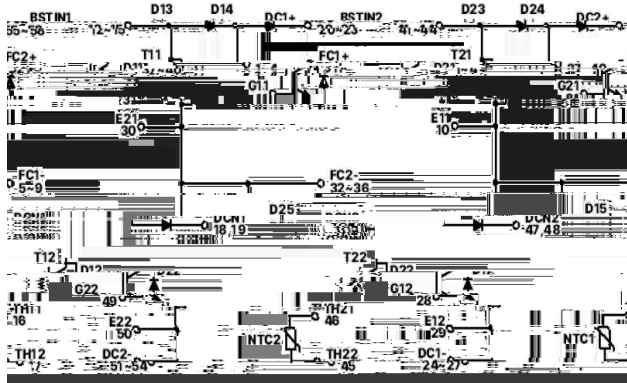


Figure 1. NXH500B100H7F5SHG Schematic Diagram

This document contains information on a product under development.

NXH500B100H7F5SHG

ELECTRICAL CHARACTERISTICS $T_J = 25\text{ C}$ unless otherwise noted

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
IGBT INVERSE DIODE (D11, D12, D21, D22)						
I^2t	$t_p = 10\text{ ms}, T_{vj} = 150\text{ C}$	I^2t	-	1250	-	A^2s
Thermal Resistance – chip-to-heatsink	Thermal grease,					

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TYPICAL CHARACTERISTIC – D13,D14,D23,D24 (SIC SCHOTTKY DIODE) (continued)

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TYPICAL CHARACTERISTICS – T11, T12, T21, T22 (IGBT) (continued)

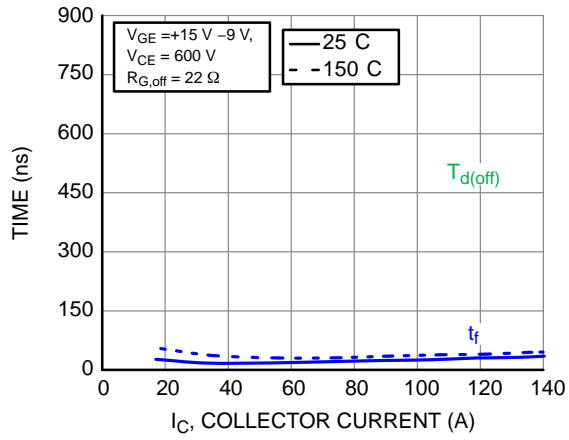


Figure 21. Typical Turn Off Switching Time vs. I_C

Figure 22. Typical Turn On Switching Time vs. I_C

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TYPICAL CHARACTERISTICS – SIC SCHOTTKY DIODE (D13,D14,D23,D24) (continued)

Figure 27. Typical Reverse Recovery
Time vs. I_C

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TYPICAL CHARACTERISTICS – SIC SCHOTTKY DIODE (D13,D14,D23,D24) (continued)

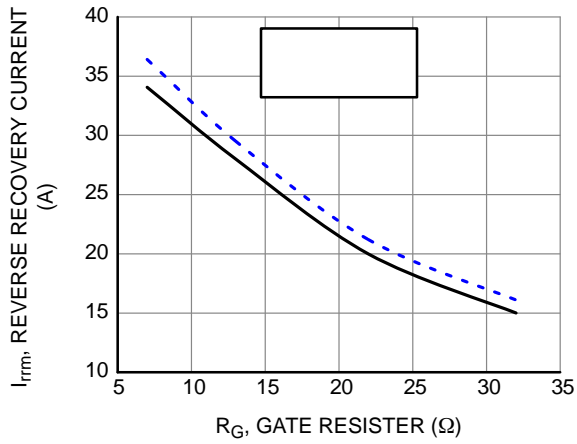


Figure 33. Typical Reverse Recovery Time vs. I_C

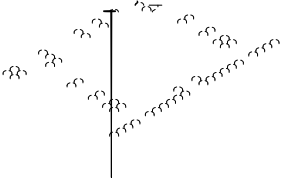
Figure 34. Typical Reverse Recovery Charge vs. I_C

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PACKAGE DIMENSIONS

PIM58 112.00x62.00x12.00
CASE 180CZ
ISSUE 0

DATE 30 JUL 2024



NXH500B100H7F5SHG

PACKAGE DIMENSIONS

PIM58 112.00x62.00x12.00
CASE 180CZ
ISSUE O

DATE 30 JUL 2024



