

# Flying Capacitor BOOST Module

## Product Preview

### NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

The NXH500B100H7Q2F2SHG/PHG is a power module in Q2 package containing two channel flying capacitor boost. 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
- 1000 V Field Stop 7 IGBTs and 1200 V SiC Diodes
- Low Inductive Layout
- Solder Pins and Press Fit Pins
- Integrated NTC Thermistor
- These Devices are Pb-Free, Halide Free and are RoHS Compliant

#### Typical Applications

- Solar Inverter
- Energy Storage System

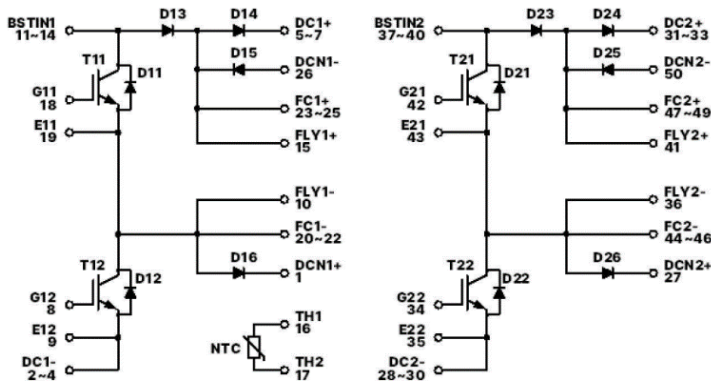
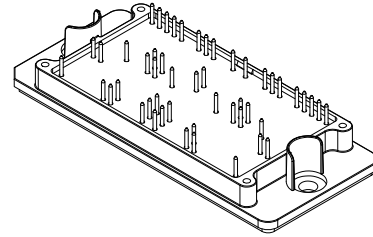
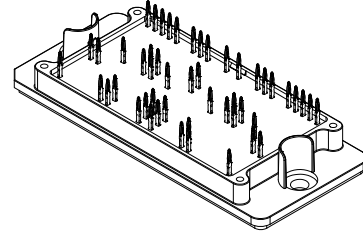


Figure 1. NXH500B100H7Q2F2SHG/PHG Schematic Diagram

This document contains information on a product under development. onsemi reserves the right to change or discontinue this product without notice.

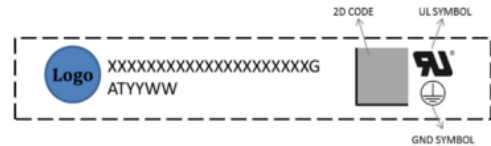


PIM50 93.00x47.00x12.00 (SOLDER PIN)  
CASE 180CU



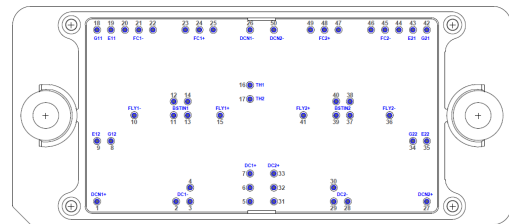
PIM50 93.00x47.00x12.00 (PRESS FIT PIN)  
CASE 180HZ

#### MARKING DIAGRAM



XXXXX = Device Code  
G = Pb-Free Package  
AT = Assembly & Test Site Code  
YYWW = Year and Work Week Code

#### PIN CONNECTIONS



#### ORDERING INFORMATION

See detailed ordering and shipping information on page 4 of this data sheet.

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## MODULE CHARACTERISTICS

Rating	Symbol	Value	Unit
Operating Temperature under Switching Condition	$T_{VJOP}$	-40 to 150	°C
Storage Temperature Range	$T_{stg}$	-40 to 125	°C
Isolation Test Voltage, $t = 2$ s, 50 Hz (Note 1)	$V_{is}$	4800	$V_{RMS}$
Stray Inductance	$L_s$ CE	15	nH
Terminal Connection Torque (M5, Screw) Torque	M	3 to 5	Nm
Weight	G	176	g
Comparative Tracking Index	CTI	>600	

1. 4800  $V_{ACRMS}$  for 2 second duration is equivalent to 4000  $V_{ACRMS}$  for 1 minute duration.

## MAXIMUM RATINGS ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
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### IGBT (T11, T12, T21, T22)

Collector-Emitter Voltage	$V_{CES}$	1000	V
Gate-Emitter Voltage Positive Transient Gate-Emitter Voltage ( $T_{pulse} = 5 \mu\text{s}$ , $D < 0.10$ )	$V_{GE}$	$\pm 20$ 30	V
Continuous Collector Current @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$I_C$	210	A
Pulsed Peak Collector Current @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ ), $T_{pulse} = 1$ ms	$I_{C(Pulse)}$	630	A
Power Dissipation ( $T_J = 175^\circ\text{C}$ , $T_C = 80^\circ\text{C}$ )	$P_{tot}$	503	W
Minimum Operating Junction Temperature	$T_{JMIN}$	-40	°C
Maximum Operating Junction Temperature	$T_{JMAX}$	175	°C

### IGBT INVERSE DIODE (D11, D12, D21, D22)

Peak Repetitive Reverse Voltage	$V_{RRM}$	1600	V
Continuous Forward Current @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$I_F$	97	A
Repetitive Peak Forward Current ( $T_J = 175^\circ\text{C}$ ), $T_{pulse} = 1$ ms	$I_{FRM}$	291	A
Maximum Power Dissipation @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$P_{tot}$	171	W
Minimum Operating Junction Temperature	$T_{JMIN}$	-40	°C
Maximum Operating Junction Temperature	$T_{JMAX}$	175	°C

### BOOST SILICON CARBIDE SCHOTTKY DIODE (D13, D14, D23, D24)

Peak Repetitive Reverse Voltage	$V_{RRM}$	1200	V
Continuous Forward Current @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$I_F$	155	A
Repetitive Peak Forward Current ( $T_J = 175^\circ\text{C}$ ), $T_{pulse} = 1$ ms	$I_{FRM}$	465	A
Maximum Power Dissipation @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$P_{tot}$	352	W
Minimum Operating Junction Temperature	$T_{JMIN}$	-40	°C
Maximum Operating Junction Temperature	$T_{JMAX}$	175	°C

### START-UP DIODE (D15, D25)

Peak Repetitive Reverse Voltage	$V_{RRM}$	1200	V
Continuous Forward Current @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$I_F$	34	A
Repetitive Peak Forward Current ( $T_J = 175^\circ\text{C}$ ), $T_{pulse} = 1$ ms	$I_{FRM}$	102	A
Maximum Power Dissipation @ $T_C = 80^\circ\text{C}$ ( $T_J = 175^\circ\text{C}$ )	$P_{tot}$	88	W
Minimum Operating Junction Temperature	$T_{JMIN}$	-40	°C
Maximum Operating Junction Temperature	$T_{JMAX}$	175	°C

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## MAXIMUM RATINGS (T<sub>J</sub> = 25°C unless otherwise noted) (continued)

Parameter	Symbol	Value	Unit
<b>START-UP DIODE (D16, D26)</b>			
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	1200	V
Continuous Forward Current @ T <sub>C</sub> = 80°C (T <sub>J</sub> = 175°C)	I <sub>F</sub>	78	A
Repetitive Peak Forward Current (T <sub>J</sub> = 175°C), T <sub>pulse</sub> = 1 ms	I <sub>FRM</sub>	234	A
Maximum Power Dissipation @ T <sub>C</sub> = 80°C (T <sub>J</sub> = 175°C)	P <sub>tot</sub>	203	W
Minimum Operating Junction Temperature	T <sub>JMIN</sub>	-40	°C
Maximum Operating Junction Temperature	T <sub>JMAX</sub>	175	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

2. Refer to ELECTRICAL CHARACTERISTICS, RECOMMENDED OPERATING RANGES and/or APPLICATION INFORMATION for Safe Operating parameters.

## ELECTRICAL CHARACTERISTICS (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit	
<b>IGBT (T11, T12, T21, T22)</b>							
Collector-Emitter Cutoff Current	V <sub>GE</sub> = 0 V, V <sub>CE</sub> = 1000 V	I <sub>CES</sub>	-	-	500	μA	
Collector-Emitter Saturation Voltage	V <sub>GE</sub> = 15 V, I <sub>C</sub> = 240 A, T <sub>C</sub> = 25°C	V <sub>CE(SAT)</sub>	-	1.7	2.3	V	
	V <sub>GE</sub> = 15 V, I <sub>C</sub> = 240 A, T <sub>C</sub> = 150°C		-	2.1	-		
Gate-Emitter Threshold Voltage	V <sub>GE</sub> = V <sub>CE</sub> , I <sub>C</sub> = 240 mA	V <sub>GE(TH)</sub>	4.0	5.7	6.9	V	
Gate Leakage Current	V <sub>GE</sub> = ±20 V, V <sub>CE</sub> = 0 V	I <sub>GES</sub>	-	-	1	μA	
Internal Gate Resistor		R <sub>g</sub>	-	1.5	-	Ω	
Turn-off Safe Operating Area	V <sub>CC</sub> < 800V, R <sub>G, off</sub> ≥ 30 Ω, T <sub>vj</sub> < 150°C		-	200	-	A	
Turn-On Delay Time	T <sub>J</sub> = 25°C V <sub>CE</sub> = 600 V, I <sub>C</sub> = 100 A V <sub>GE</sub> = -9 V, +15 V, R <sub>G, on</sub> = 7 Ω, R <sub>G, off</sub> = 22 Ω	t <sub>d(on)</sub>	-	132	-	ns	
Rise Time		t <sub>r</sub>	-	30	-		
Turn-Off Delay Time		t <sub>d(off)</sub>	-	400	-		
Fall Time		t <sub>f</sub>	-	29	-		
Turn On Switching Loss		E <sub>on</sub>	-	1070	-		μJ
Turn Off Switching Loss		E <sub>off</sub>	-	3500	-		
Turn-On Delay Time	T <sub>J</sub> = 125°C V <sub>CE</sub> = 600 V, I <sub>C</sub> = 100 A V <sub>GE</sub> = -9 V, +15 V, R <sub>G, on</sub> = 7 Ω, R <sub>G, off</sub> = 22 Ω	t <sub>d(on)</sub>	-	127	-	ns	
Rise Time		t <sub>r</sub>	-	33	-		
Turn-Off Delay Time		t <sub>d(off)</sub>	-	460	-		
Fall Time		t <sub>f</sub>	-	40	-		
Turn On Switching Loss		E <sub>on</sub>	-	1280	-		μJ
Turn Off Switching Loss		E <sub>off</sub>	-	5000	-		
Input Capacitance	V <sub>CE</sub> = 20 V, V <sub>GE</sub> = 0 V, f = 100 kHz	C <sub>ies</sub>	-	18488	-	pF	
Output Capacitance		C <sub>oes</sub>	-	797	-		
Reverse Transfer Capacitance		C <sub>res</sub>	-	116	-		
Gate Charge	V <sub>CE</sub> = 600 V, V <sub>GE</sub> = -15/+20 V, I <sub>C</sub> = 40 A	Q <sub>g</sub>	-	1094	-	nC	
Thermal Resistance – Chip-to-heatsink	Thermal grease, Thickness = 2.1 Mil ±2%, λ = 2.9 W/mK	R <sub>thJH</sub>	-	0.309	-	K/W	
Thermal Resistance – Chip-to-case		R <sub>thJC</sub>	-	0.197	-	K/W	

## IGBT INVERSE DIODE (D11, D12, D21, D22)

Diode Forward Voltage	I <sub>F</sub> = 50 A, T <sub>J</sub> = 25°C	V <sub>F</sub>	-	1.15	1.5	V
	I <sub>F</sub> = 50 A, T <sub>J</sub> = 150°C		-	1.0	-	
Thermal Resistance – Chip-to-heatsink	Thermal grease, Thickness = 2.1 Mil ±2%, λ = 2.9 W/mK	R <sub>thJH</sub>	-	0.670	-	K/W
		R <sub>thJC</sub>	-	0.562	-	K/W

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## ELECTRICAL CHARACTERISTICS ( $T_J = 25^\circ\text{C}$ unless otherwise noted) (continued)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
<b>BOOST SILICON CARBIDE SCHOTTKY DIODE (D13, D14, D23, D24)</b>						
Diode Forward Voltage	$I_F = 120\text{ A}, T_J = 25^\circ\text{C}$	$V_F$	-	1.45	1.7	V
	$I_F = 120\text{ A}, T_J = 150^\circ\text{C}$		-	1.75	-	
Reverse Recovery Time	$T_J = 25^\circ\text{C}$ $V_R = 600\text{ V}, I_C = 100\text{ A}$ $V_{GE} = -9\text{ V}, 15\text{ V}, R_{G, on} = 7\ \Omega$	$t_{rr}$	-	25.5	-	ns
Reverse Recovery Charge		$Q_{rr}$	-	575	-	nC
Peak Reverse Recovery Current		$I_{RRM}$	-	33	-	A
Peak Rate of Fall of Recovery Current		$di/dt$	-	2800	-	A/ $\mu\text{s}$
Reverse Recovery Energy		$E_{rr}$	-	270	-	$\mu\text{J}$
Reverse Recovery Time		$T_J = 125^\circ\text{C}$ $V_R = 600\text{ V}, I_C = 100\text{ A}$ $V_{GE} = -9\text{ V}, 15\text{ V}, R_{G, on} = 7\ \Omega$	$t_{rr}$	-	26	-
Reverse Recovery Charge	$Q_{rr}$		-	615	-	nC
Peak Reverse Recovery Current	$I_{RRM}$		-	36	-	A
Peak Rate of Fall of Recovery Current	$di/dt$		-	2550	-	A/ $\mu\text{s}$
Reverse Recovery Energy	$E_{rr}$		-	279	-	$\mu\text{J}$
Thermal Resistance – Chip-to-heatsink	Thermal grease, Thickness = 2.1 Mil $\pm 2\%$ , $\lambda = 2.9\text{ W/mK}$		$R_{thJH}$	-	0.416	-
Thermal Resistance – Chip-to-case		$R_{thJC}$	-	0.288	-	K/W

### START-UP DIODE (D15, D25)

Diode Forward Voltage	$I_F = 30\text{ A}, T_J = 25^\circ\text{C}$	$V_F$	-	2.2	2.9	V
	$I_F = 30\text{ A}, T_J = 150^\circ\text{C}$		-	1.5	-	
Thermal Resistance – Chip-to-heatsink	Thermal grease, Thickness = 2.1 Mil $\pm 2\%$ , $\lambda = 2.9\text{ W/mK}$	$R_{thJH}$	-	1.225	-	K/W
Thermal Resistance – Chip-to-case		$R_{thJC}$	-	1.085	-	K/W

### START-UP DIODE (D16, D26)

Diode Forward Voltage	$I_F = 75\text{ A}, T_J = 25^\circ\text{C}$	$V_F$	-	2.87	3.5	V
	$I_F = 75\text{ A}, T_J = 150^\circ\text{C}$		-	2.19	-	
Thermal Resistance – Chip-to-heatsink	Thermal grease, Thickness = 2.1 Mil $\pm 2\%$ , $\lambda = 2.9\text{ W/mK}$	$R_{thJH}$	-	0.61	-	K/W
Thermal Resistance – Chip-to-case		$R_{thJC}$	-	0.47	-	K/W

### THERMISTOR CHARACTERISTICS

Nominal Resistance	$T = 25^\circ\text{C}$	$R_{25}$	-	5	-	k $\Omega$
Nominal Resistance	$T = 100^\circ\text{C}$	$R_{100}$	-	492.2	-	$\Omega$
Deviation of R25		$\Delta R/R$	-1	-	1	%
Power Dissipation		$P_D$	-	5	-	mW
Power Dissipation Constant			-	1.3	-	mW/K
B-value	B(25/85), tolerance $\pm 1\%$		-	3430	-	K

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

### ORDERING INFORMATION

Orderable Part Number	Marking	Package	Shipping
NXH500B100H7Q2F2SHG	NXH500B100H7Q2F2SHG	Q2 – PIM50 93x47 (SOLDER PIN) (Pb-Free / Halide Free)	12 Units / Blister Tray
NXH500B100H7Q2F2PHG	NXH500B100H7Q2F2PHG	Q2 – PIM50 93x47 (PRESS FIT PIN) (Pb-Free / Halide Free)	12 Units / Blister Tray

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## TYPICAL CHARACTERISTIC – T11, T12, T21, T22 (IGBT)

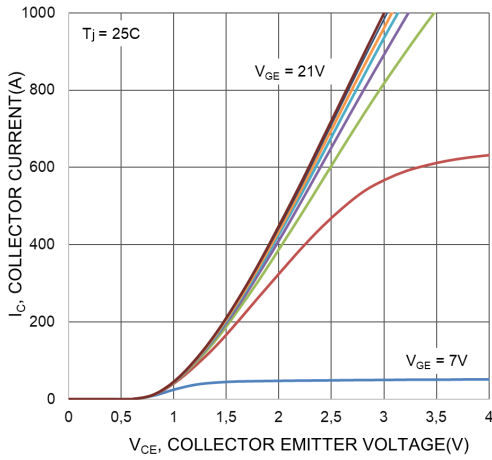


Figure 2. Typical Output Characteristics – IGBT

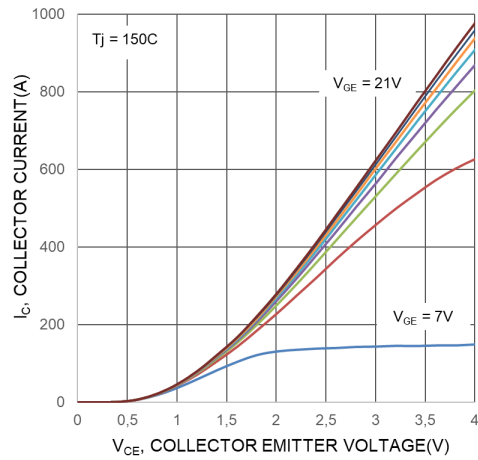


Figure 3. Typical Output Characteristics – IGBT

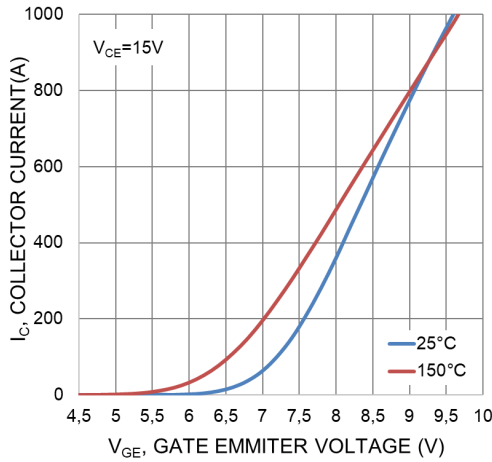


Figure 4. Transfer Characteristics – IGBT

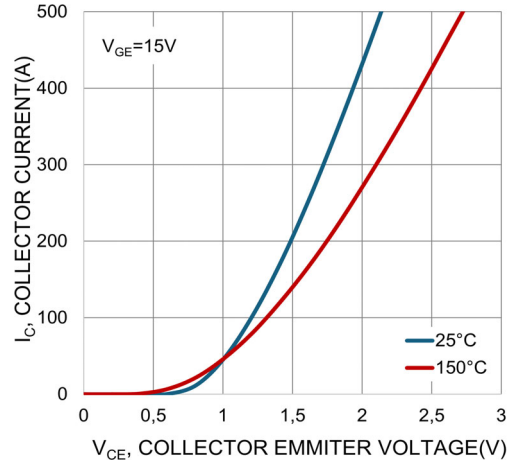


Figure 5. Saturation Voltage Characteristic – IGBT

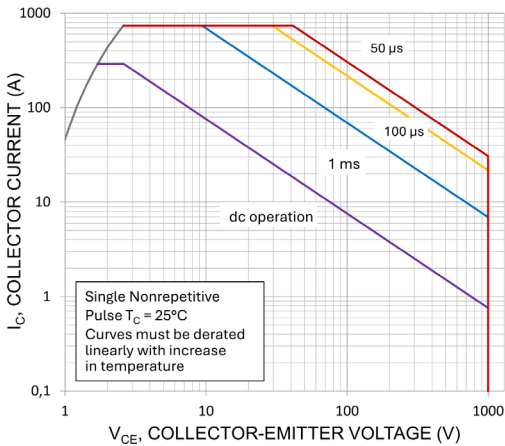


Figure 6. FBSOA

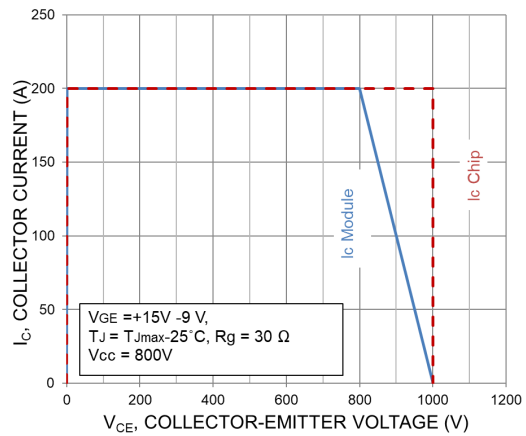
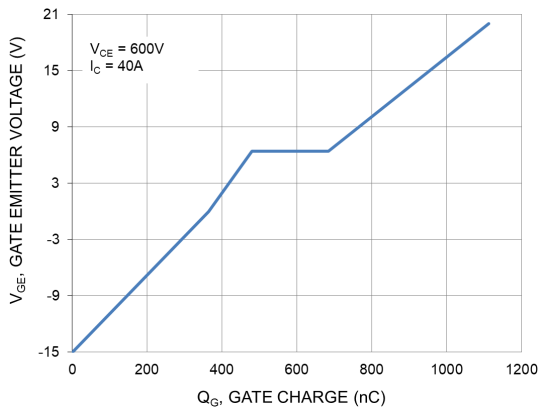


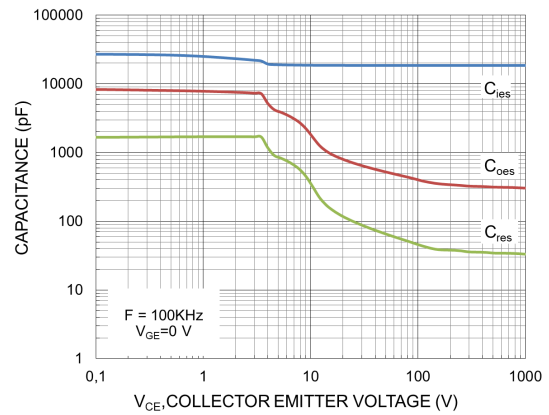
Figure 7. RBSOA

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

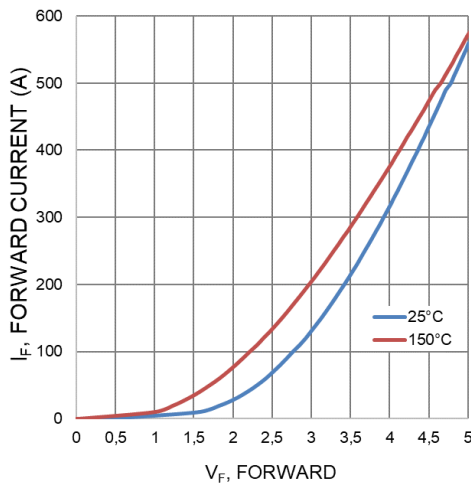
## TYPICAL CHARACTERISTIC – T11, T12, T21, T22 (IGBT) (CONTINUED)



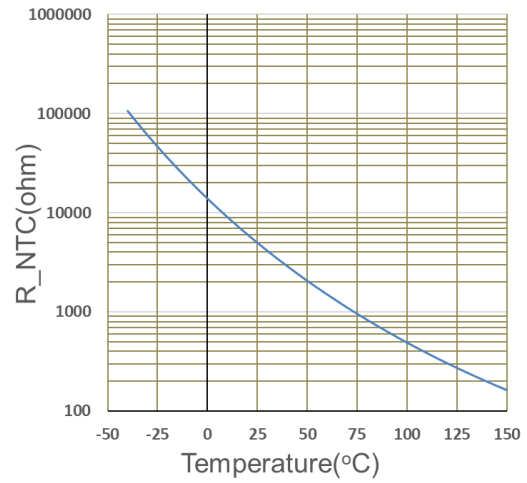
**Figure 8. Gate Voltage vs. Gate Charge**



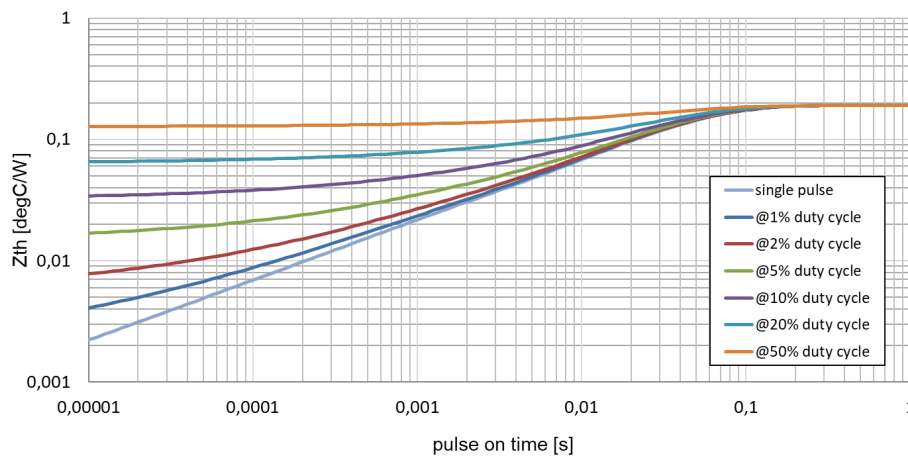
**Figure 9. Capacitance vs. V<sub>CE</sub>**



**Figure 10. Start-up Diode Forward Characteristics**



**Figure 11. Thermistor Characteristic**



**Figure 12. Transient Thermal Impedance (IGBT Z<sub>thjc</sub>)**

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## TYPICAL CHARACTERISTIC – D11, D12, D21, D22 (INVERSE DIODE)

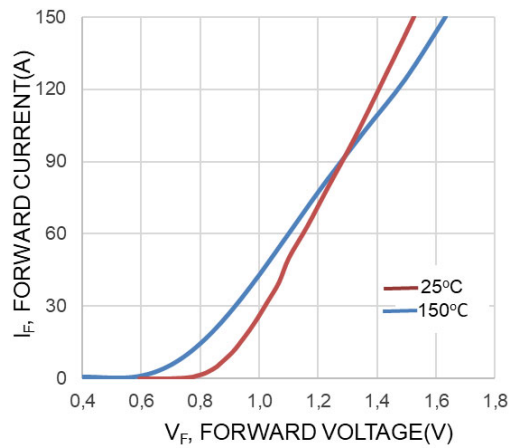


Figure 13. Inverse Diode Forward Characteristics

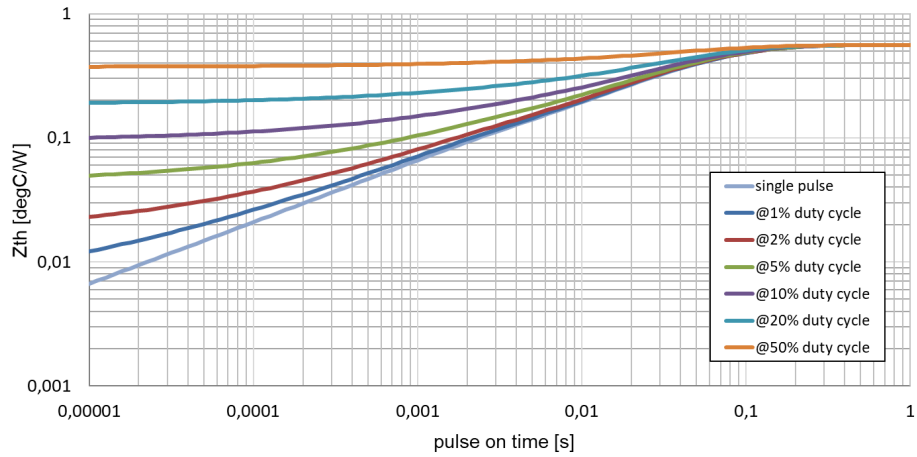


Figure 14. Transient Thermal Impedance (Inverse Diode Zthjc)

## TYPICAL CHARACTERISTIC – D13, D14, D23, D24 (SiC SCHOTTKY DIODE)

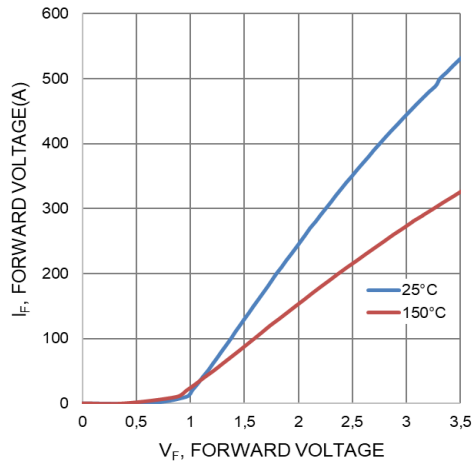


Figure 15. SiC Schottky Diode Forward Characteristics

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## TYPICAL CHARACTERISTIC – D13, D14, D23, D24 (SiC SCHOTTKY DIODE) (CONTINUED)

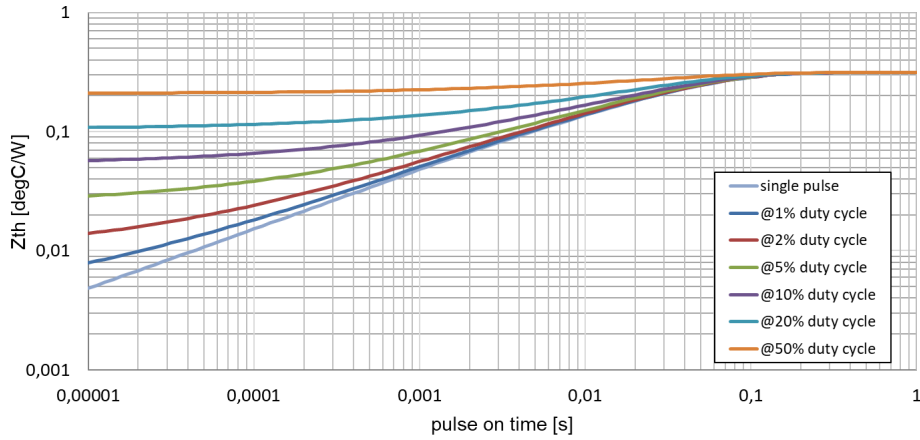


Figure 16. Transient Thermal Impedance (SiC Schottky Diode  $Z_{thjc}$ )

## TYPICAL CHARACTERISTIC – D15, D25 (START-UP DIODE)

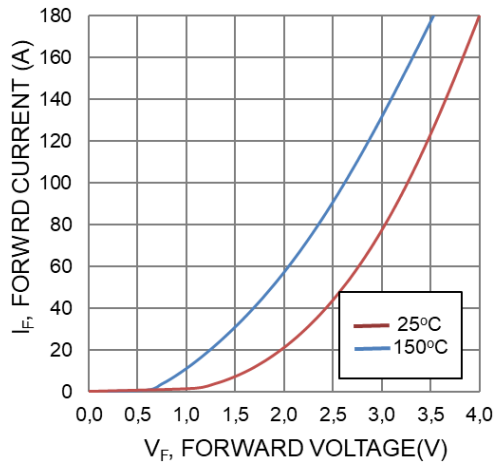


Figure 17. Start-up Diode Forward Characteristics

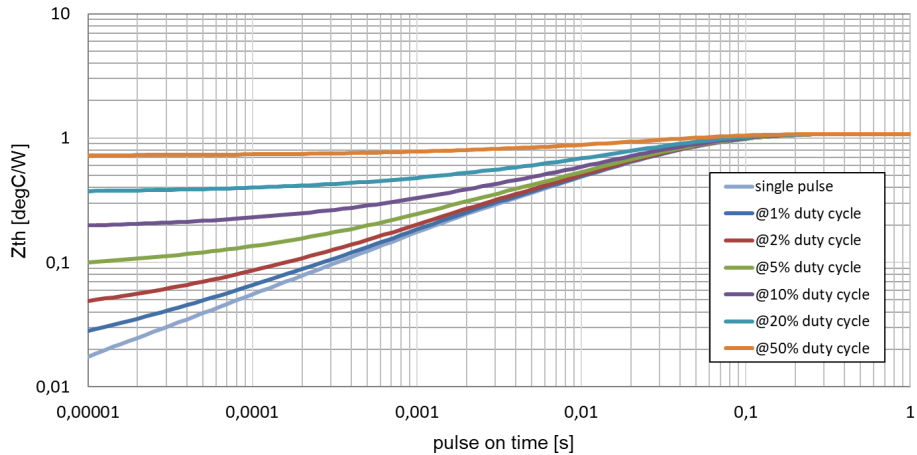


Figure 18. Transient Thermal Impedance (Start-up Diode  $Z_{thjc}$ )



TYPICAL CHARACTERISTICS – D16, D26 DIODE

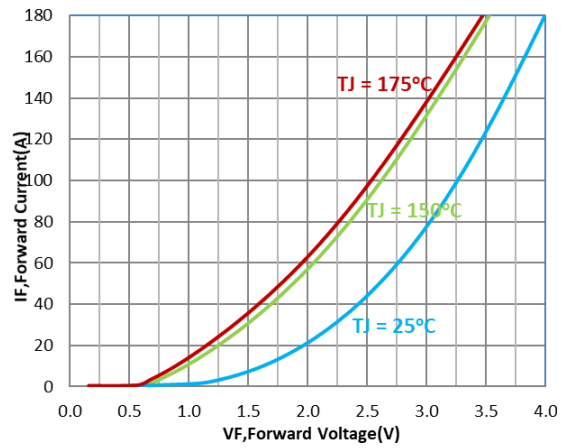


Figure 19. Diode Forward Characteristics

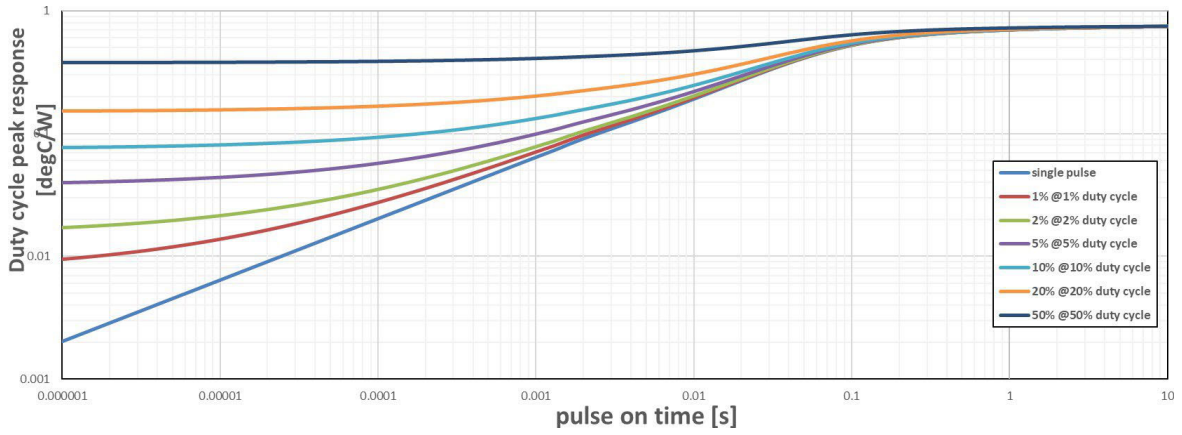


Figure 20. Transient Thermal Impedance (Rthjh)

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

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

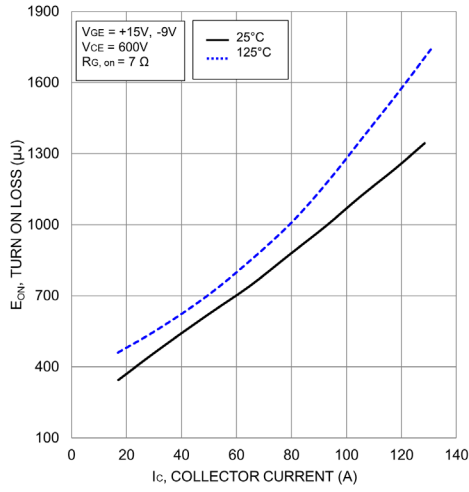


Figure 21. Typical Turn On Loss vs.  $I_C$

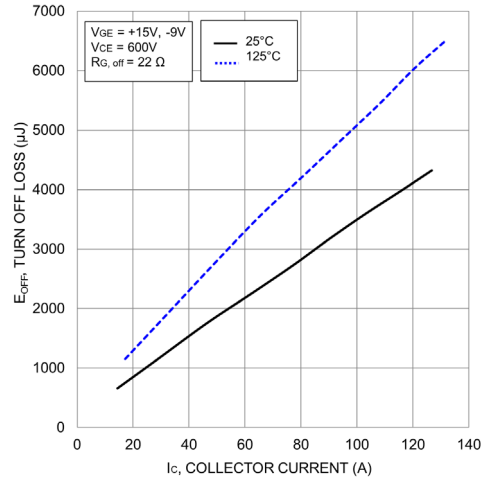


Figure 22. Typical Turn Off Loss vs.  $I_C$

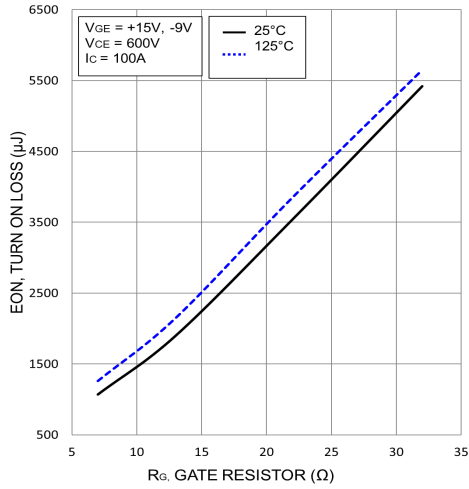


Figure 23. Typical Turn On Loss vs.  $R_G$

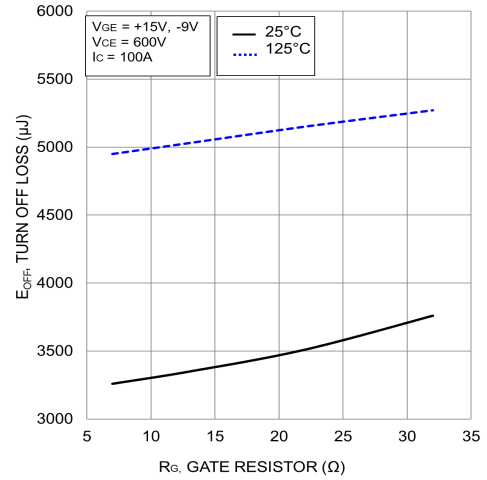


Figure 24. Typical Turn Off Loss vs.  $R_G$

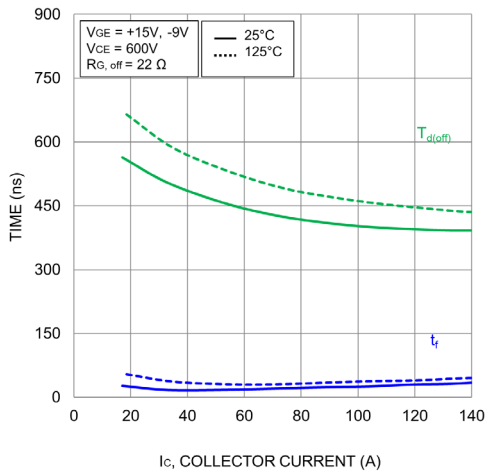


Figure 25. Typical Turn-Off Switching Time vs.  $I_C$

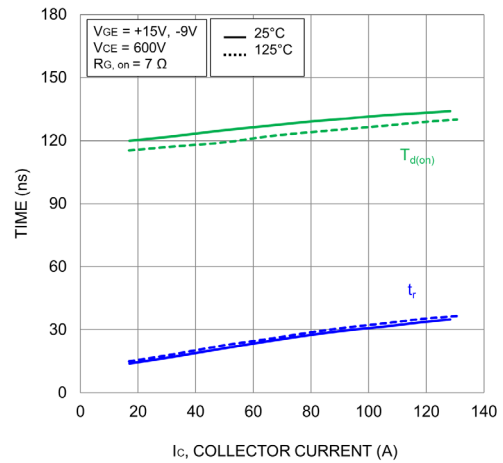


Figure 26. Typical Turn-On Switching Time vs.  $I_C$

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## TYPICAL CHARACTERISTICS – T11, T12, T21, T22 (IGBT) (CONTINUED)

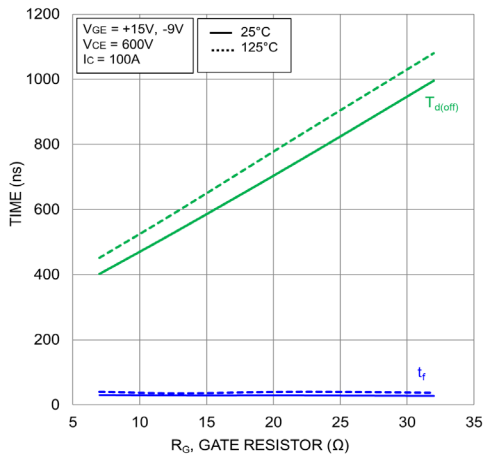


Figure 27. Typical Turn-Off Switching Time vs.  $R_G$

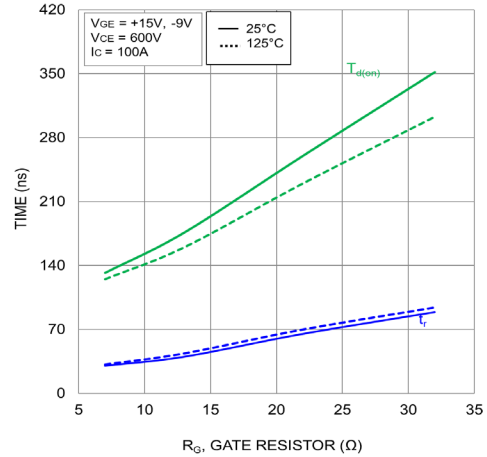


Figure 28. Typical Turn-On Switching Time vs.  $R_G$

## TYPICAL CHARACTERISTICS – SiC SCHOTTKY DIODE (D13, D14, D23, D24)

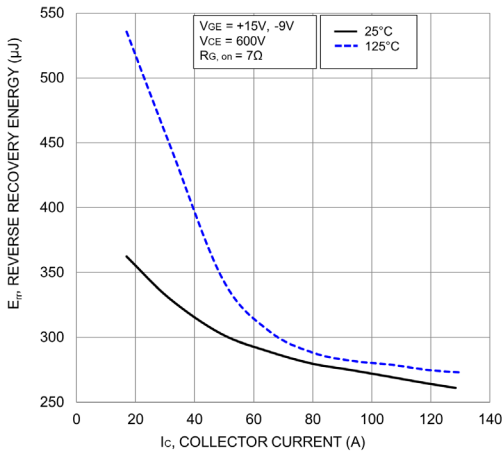


Figure 29. Typical Reverse Recovery Energy Loss vs.  $I_C$

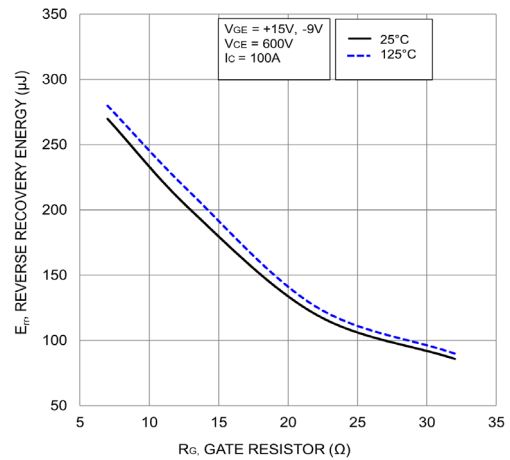


Figure 30. Typical Reverse Recovery Energy Loss vs.  $R_G$

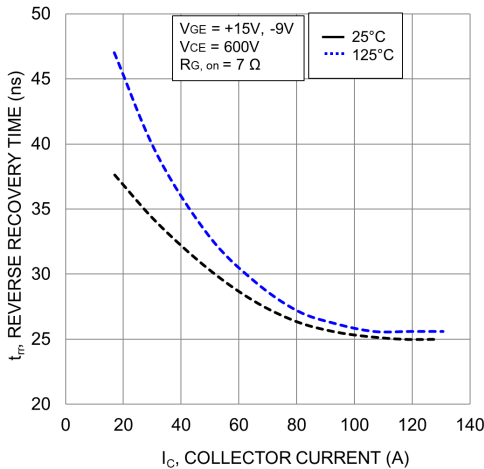


Figure 31. Typical Reverse Recovery Time vs.  $I_C$

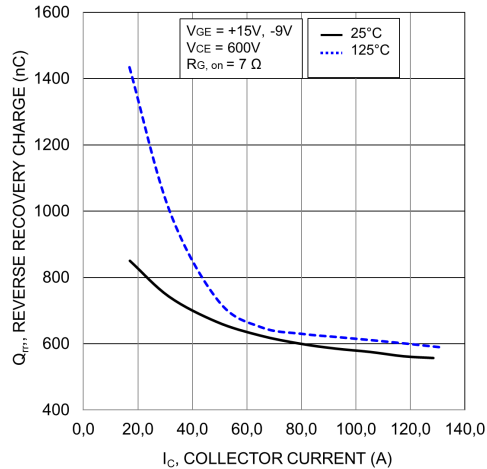


Figure 32. Typical Reverse Recovery Charge vs.  $I_C$

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## TYPICAL CHARACTERISTICS – SiC SCHOTTKY DIODE (D13, D14, D23, D24) (CONTINUED)

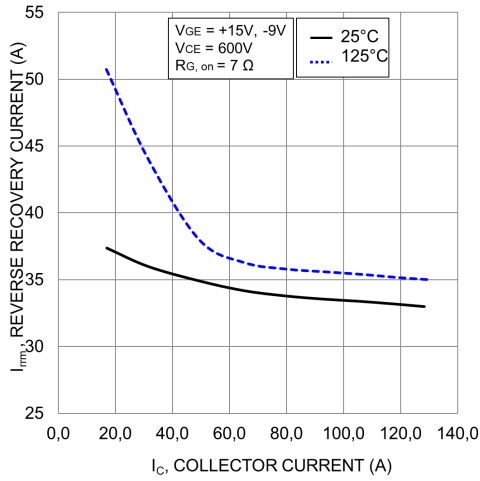


Figure 33. Typical Reverse Recovery Current vs.  $I_C$

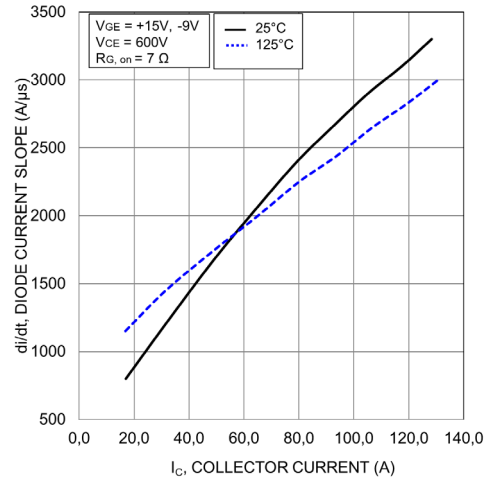


Figure 34. Typical Diode Current Slope vs.  $I_C$

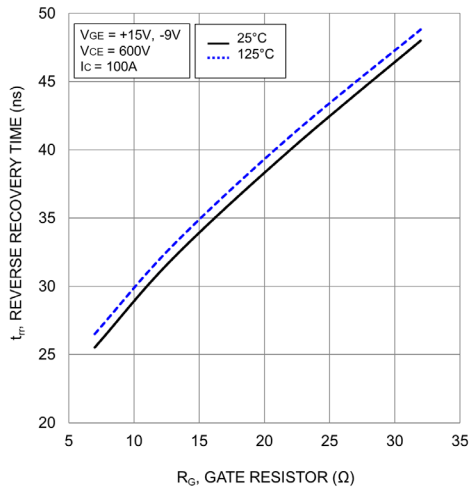


Figure 35. Typical Reverse Recovery Time vs.  $R_G$

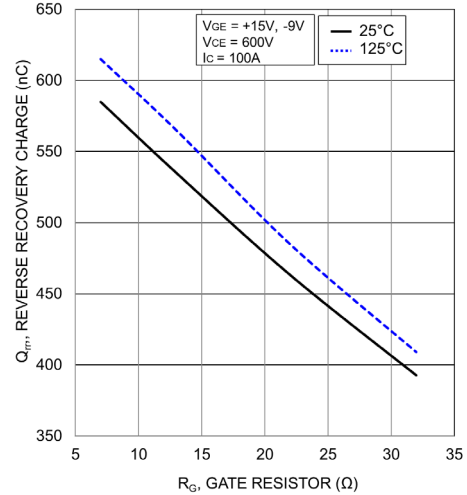


Figure 36. Typical Reverse Recovery Charge vs.  $R_G$

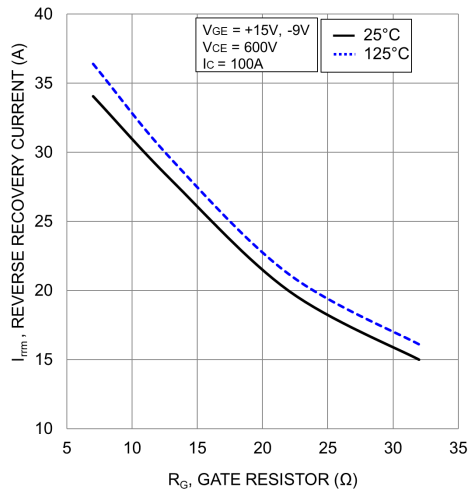


Figure 37. Typical Reverse Recovery Current vs.  $R_G$

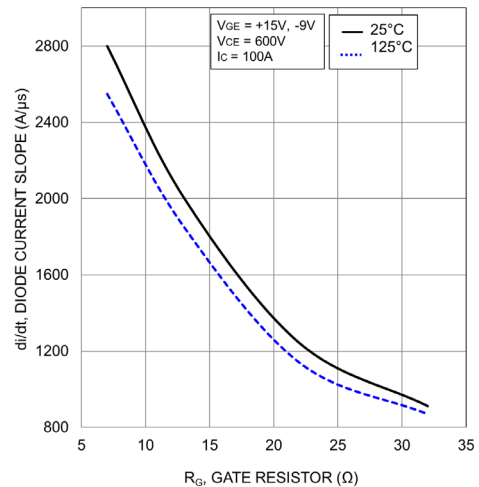


Figure 38. Typical Diode Current Slope vs.  $R_G$

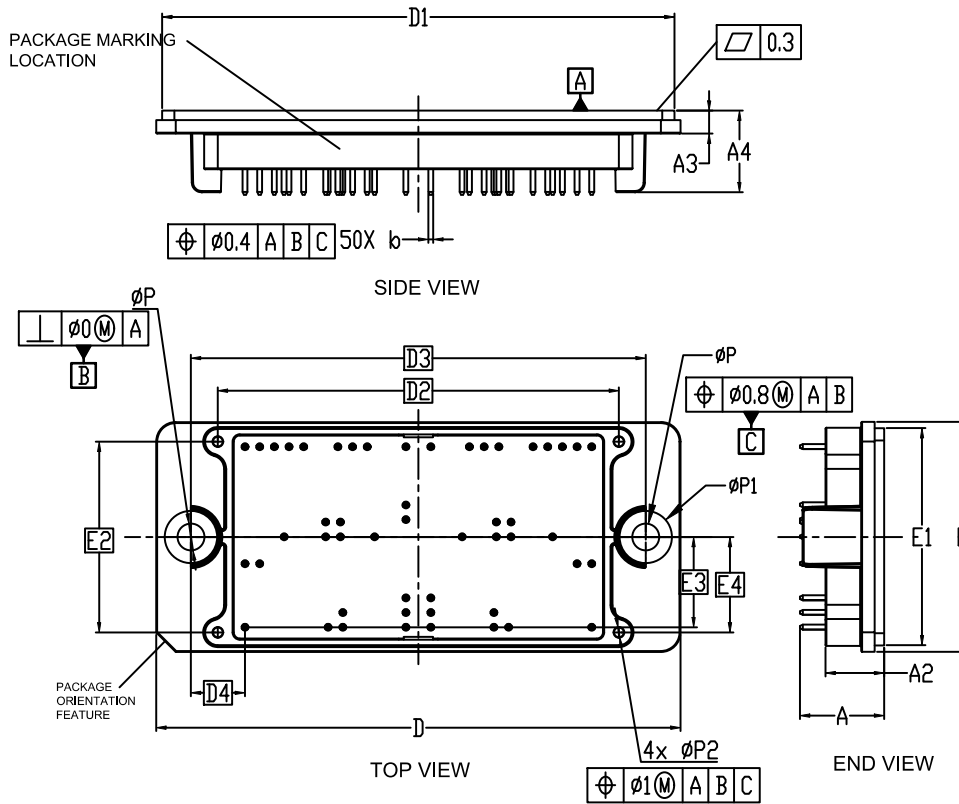
# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## PACKAGE DIMENSIONS

PIM50 93.00x47.00x12.00  
CASE 180CU  
ISSUE O

NOTES:

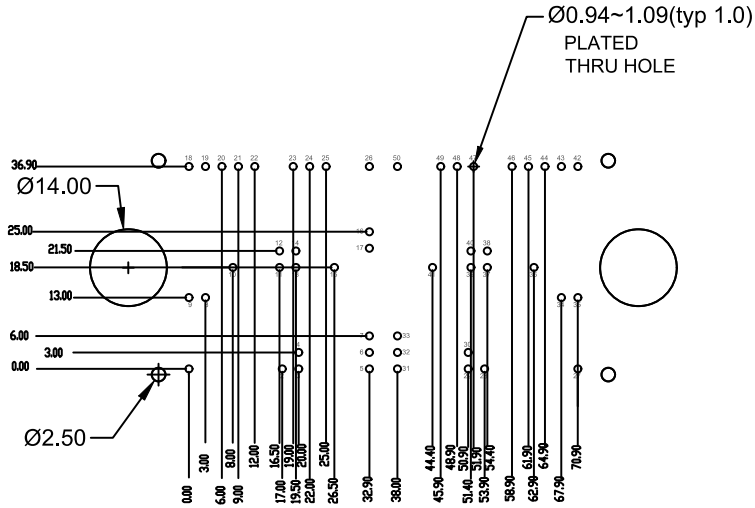
1. Dimensioning and tolerancing conform to ASME Y14.5
2. All dimensions are in millimeters.
3. Dimensions b and b1 apply to the plated terminals and are measured at dimension A1
4. Pin position tolerance is  $\pm 0.4\text{mm}$
5. Package marking is located on the side opposite the package orientation feature.
6. The pins are Gold plated solder pin



DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	16.80	17.20	17.60
A2	11.70	12.00	12.30
A3	4.40	4.70	5.00
A4	16.40	16.70	17.00
b	0.95	1.00	1.05
D	106.90	107.20	107.50
D1	104.45	104.75	105.05
D2	82.00 BSC		
D3	93.00 BSC		
D4	11.05 BSC		
E	46.70	47.00	47.30
E1	44.10	44.40	44.70
E2	39.00 BSC		
E3	18.45 BSC		
E4	19.50 BSC		
P	5.40	5.50	5.60
P1	10.60	10.70	10.80
P2	1.80	2.00	2.20

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

PIM50 93.00x47.00x12.00  
CASE 180CU  
ISSUE 0



RECOMMENDED  
MOUNTING PATTERN

\* For additional information on our Pb-Free strategy and soldering details, please download the Onsemi Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

Pin table					
pin	X	Y	Pin	X	Y
1	0	0	26	32.90	36.90
2	17	0	27	70.90	0
3	20	0	28	53.90	0
4	20	3	29	50.90	0
5	32.90	0	30	50.90	3
6	32.90	3	31	38	0
7	32.90	6	32	38	3
8	3	13	33	38	6
9	0	13	34	67.90	13
10	8	18.50	35	70.90	13
11	16.50	18.50	36	62.90	18.50
12	16.50	21.50	37	54.40	18.50
13	19.50	21.50	38	54.40	21.50
14	19.50	18.50	39	51.40	18.50
15	26.50	18.50	40	51.40	21.50
16	32.90	25.00	41	44.40	18.50
17	32.90	22	42	70.90	36.90
18	0	36.90	43	67.90	36.90
19	3	36.90	44	64.90	36.90
20	6	36.90	45	61.90	36.90
21	9	36.90	46	58.90	36.90
22	12	36.90	47	51.90	36.90
23	19	36.90	48	48.90	36.90
24	22	36.90	49	45.90	36.90
25	25	36.90	50	38	36.90

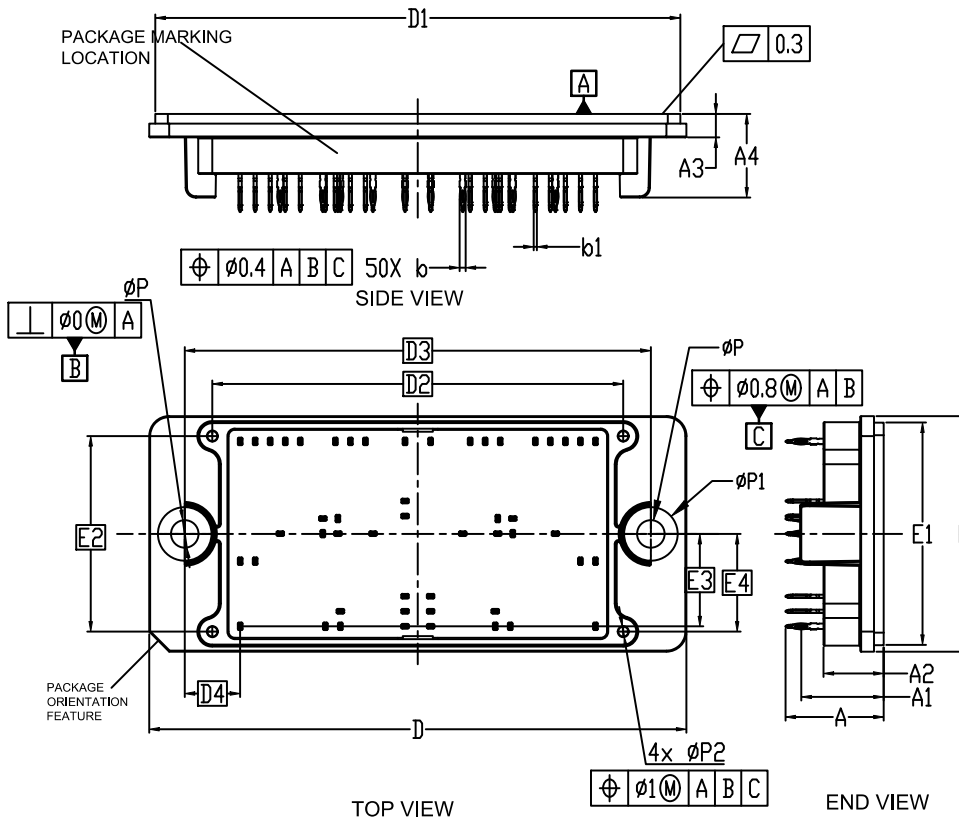
# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

## PACKAGE DIMENSIONS

PIM50 93.00x47.00x12.00  
CASE 180HZ  
ISSUE O

### NOTES:

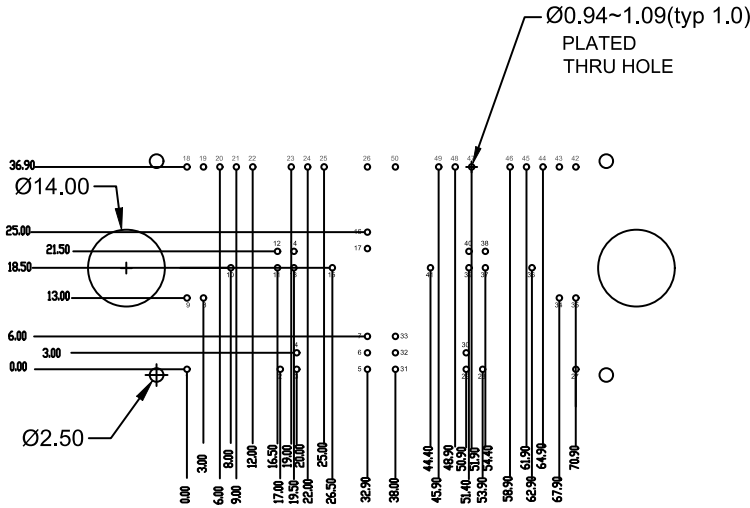
1. Dimensioning and tolerancing conform to ASME Y14.5
2. All dimensions are in millimeters.
3. Dimensions b and b1 apply to the plated terminals and are measured at dimension A1
4. Pin position tolerance is  $\pm 0.4\text{mm}$
5. Package marking is located on the side opposite the package orientation feature.
6. The pins are Sn plated press fit pin.



DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	19.20	19.60	20.00
A1	16.25	16.45	16.65
A2	11.70	12.00	12.30
A3	4.40	4.70	5.00
A4	16.40	16.70	17.00
b	1.15	1.20	1.25
b1	0.59	0.64	0.69
D	106.90	107.20	107.50
D1	104.45	104.75	105.05
D2	82.00 BSC		
D3	93.00 BSC		
D4	11.05 BSC		
E	46.70	47.00	47.30
E1	44.10	44.40	44.70
E2	39.00 BSC		
E3	18.45 BSC		
E4	19.50 BSC		
P	5.40	5.50	5.60
P1	10.60	10.70	10.80
P2	1.80	2.00	2.20

# NXH500B100H7Q2F2SHG, NXH500B100H7Q2F2PHG

PIM50 93.00x47.00x12.00  
CASE 180HZ  
ISSUE O



RECOMMENDED  
MOUNTING PATTERN

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Pin table					
pin	X	Y	Pin	X	Y
1	0	0	26	32.90	36.90
2	17	0	27	70.90	0
3	20	0	28	53.90	0
4	20	3	29	50.90	0
5	32.90	0	30	50.90	3
6	32.90	3	31	38	0
7	32.90	6	32	38	3
8	3	13	33	38	6
9	0	13	34	67.90	13
10	8	18.50	35	70.90	13
11	16.50	18.50	36	62.90	18.50
12	16.50	21.50	37	54.40	18.50
13	19.50	21.50	38	54.40	21.50
14	19.50	18.50	39	51.40	18.50
15	26.50	18.50	40	51.40	21.50
16	32.90	25.00	41	44.40	18.50
17	32.90	22	42	70.90	36.90
18	0	36.90	43	67.90	36.90
19	3	36.90	44	64.90	36.90
20	6	36.90	45	61.90	36.90
21	9	36.90	46	58.90	36.90
22	12	36.90	47	51.90	36.90
23	19	36.90	48	48.90	36.90
24	22	36.90	49	45.90	36.90
25	25	36.90	50	38	36.90

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