



NYD130F



Glass Passivated Three Phase Rectifier Bridge

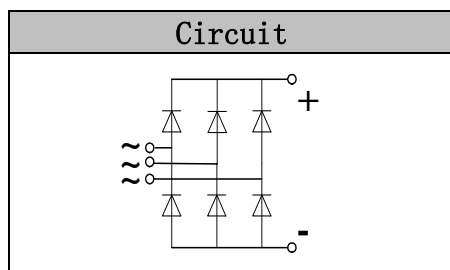
VRRM 800 to 1800V
ID 130 A

Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

Features

- Three phase bridge rectifier
- Blocking voltage:800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip



Module Type

TYPE	VRRM	VRSM	
NYD130F08	800V		900V
NYD130F12	1200V	130	1300V
NYD130F16	1600V		1700V
NYD130F18	1800V	1200	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C		
IFSM	t=10mS Tvj =45°C		
i ² t	t=10mS Tvj =45°C	7200	A ² s
Visol	Module	230	g
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight			

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.9	°C/W
Rth(c-s)	Module (Approximately)	0.03	°C/W



Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
r_f	$T_J=150^\circ\text{C}$	-	2.75	-	mΩ
V_{f0}	$T_J=150^\circ\text{C}$	-	0.77	-	V
V_{FM}	$T=25^\circ\text{C}$ $I_F=300\text{A}$	-			
I_{RD}	$T_{vj}=25^\circ\text{C}$ $V_{RD}=V_{RRM}$	-	-	0.3	mA
	$T_{vj}=150^\circ\text{C}$ $V_{RD}=V_{RRM}$	-	-	5	mA

Performance Curves

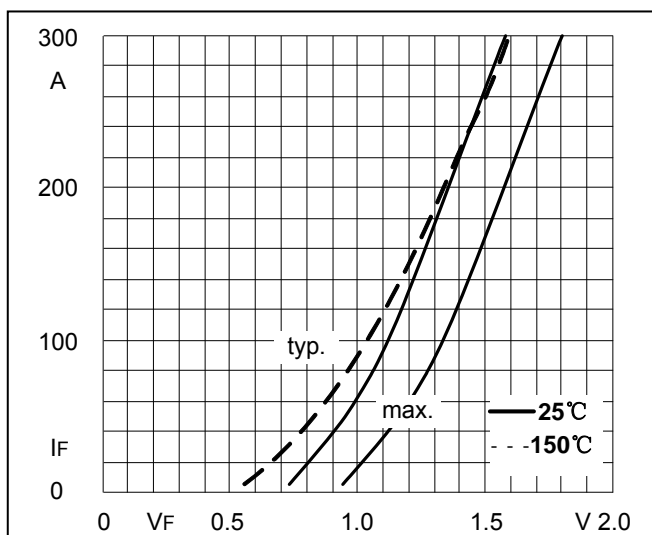


Fig1. Forward Characteristics

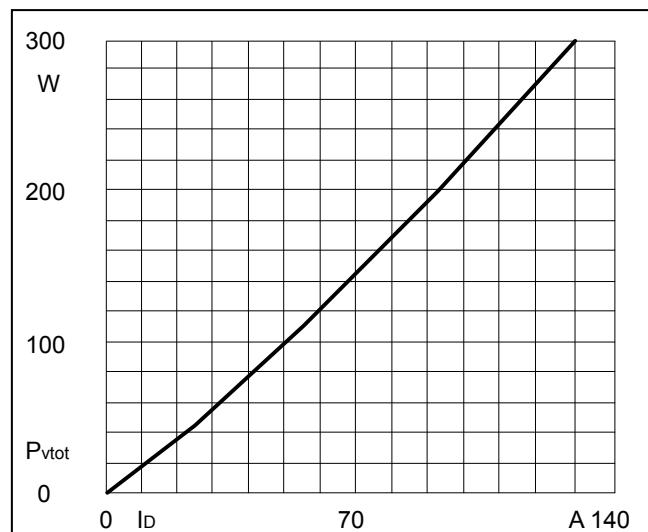


Fig2. Power dissipation

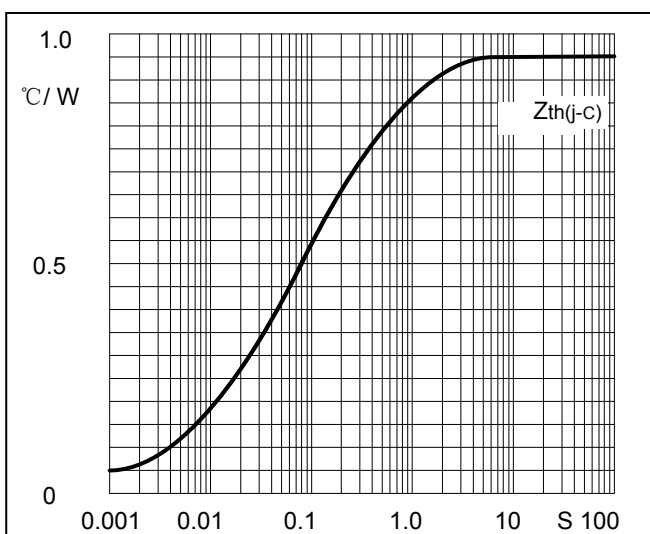


Fig3. Transient thermal impedance

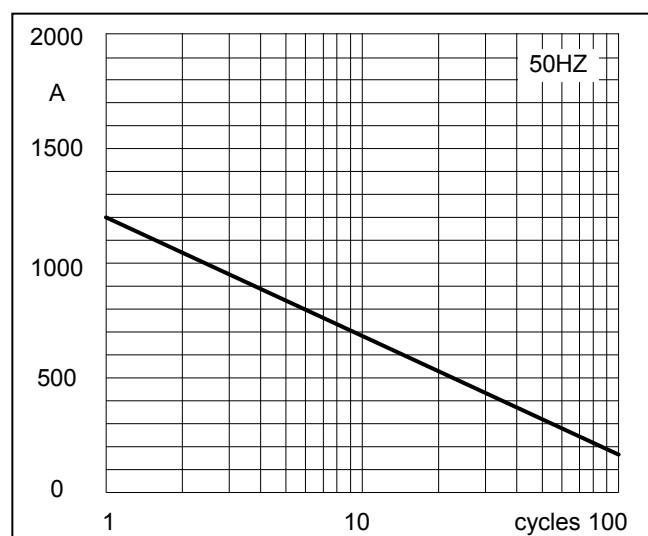


Fig4. Max Non-Repetitive Forward Surge Current

