

DIODE (THREE PHASES BRIDGE TYPE)

DF50AA120/160

TOP



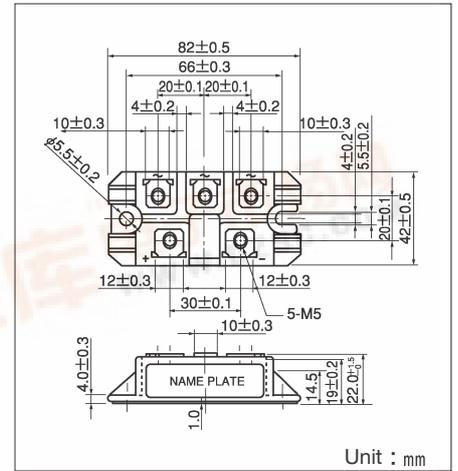
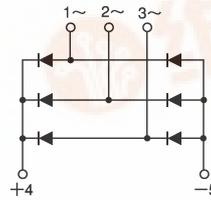
UL;E76102 (M)

Power Diode Module DF50AA is designed for three phase full wave rectification, which has six diodes connected in a three phase bridge configuration. The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction Output DC current is 50Amp (Tc = 114°C) Repetitive peak reverse voltage is up to 1,600V.

- TjMax=150°C
- Isolated mounting base
- High reliability by unique glass passivation

(Applications)

AC, DC Motor Drive/AVR/Switching
-for three phase rectification



Unit : mm

Maximum Ratings

(Tj=25°C)

Symbol	Item	Ratings		Unit
		DF50AA120	DF50AA160	
VRRM	Repetitive Peak Reverse Voltage	1200	1600	V
VRSM	Non-Repetitive Peak Reverse Voltage	1300	1700	V

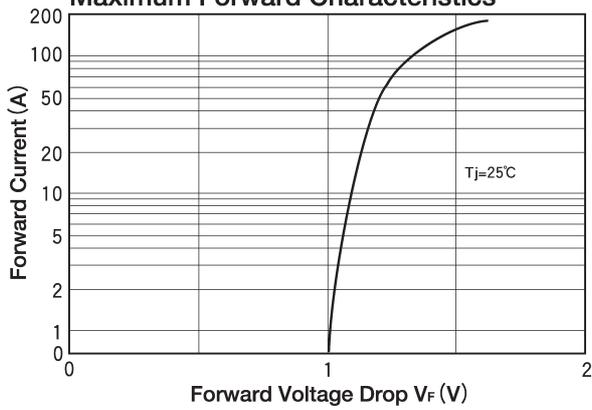
Symbol	Item	Conditions	Ratings	Unit	
Id	Output Current (D.C.)	Three phase full wave. Tc : 114°C	50	A	
IFSM	Surge Forward Current	1cycle, 50/60Hz, peak value, non-repetitive	640/700	A	
I ² t	I ² t	Value for one cycle of surge current	2000	A ² S	
Tj	Operating Junction Temperature		-40 ~ +150	°C	
Tstg	Storage Temperature		-40 ~ +125	°C	
Viso	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	
	Mass	Typical Value	160	g	

Electrical Characteristics

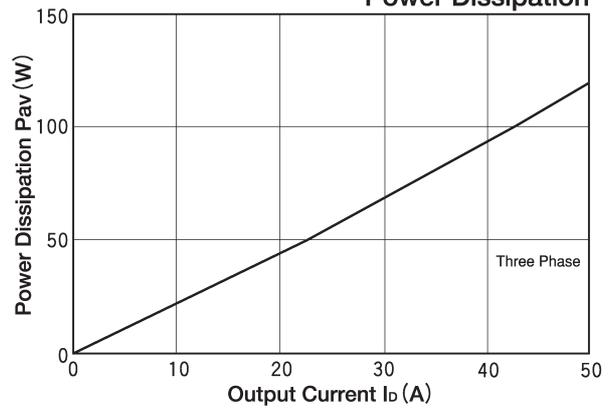
Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive Peak Reverse Current	Tj=150°C at VRRM			8.0	mA
VFM	Forward Voltage Drop	Tj=25°C, IFM=50A, Inst. measurement			1.2	V
Rth(j-c)	Thermal Impedance	Junction to case			0.3	°C/W



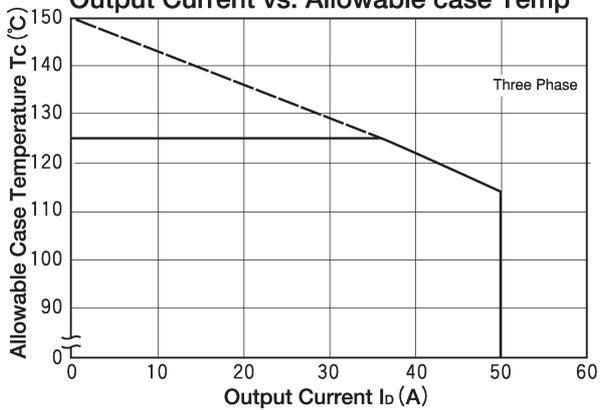
Maximum Forward Characteristics



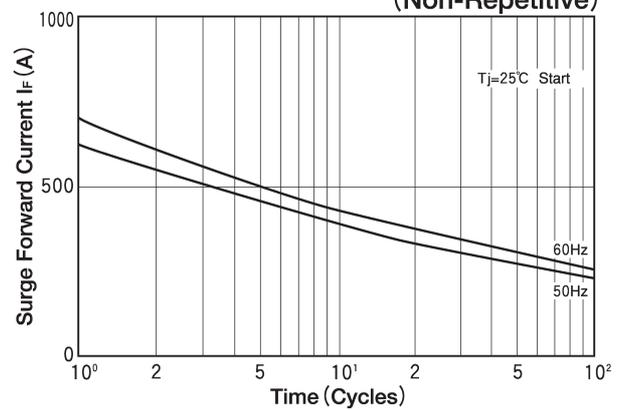
Average Forward Current vs. Power Dissipation



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

