

DIODE(THREE PHASES BRIDGE TYPE)

DF20AA120/160



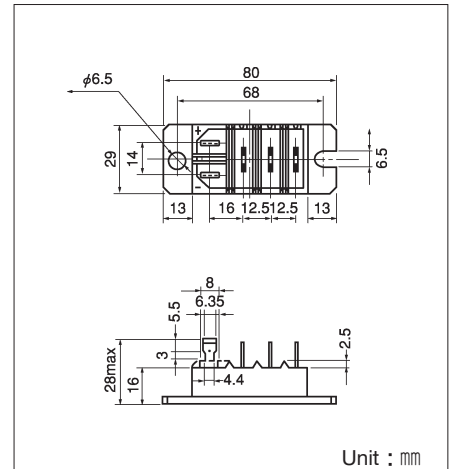
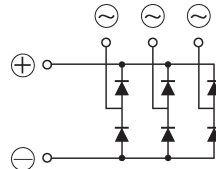
UL;E76102 (M)

Power Diode Module **DF20AA** 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 20Amp ($T_c=119^\circ\text{C}$) Repetitive peak reverse voltage is up to 1,600V.

- $T_{j\text{Max}}=150^\circ\text{C}$
- Isolated Mounting Base
- High reliability by unique glass passivation
- Easy Assemble by the #250 terminal Tab

(Applications)

AC. DC Motor Drive/AVR/Switching
—for three phase rectification



Unit : mm

Maximum Ratings

($T_j=25^\circ\text{C}$)

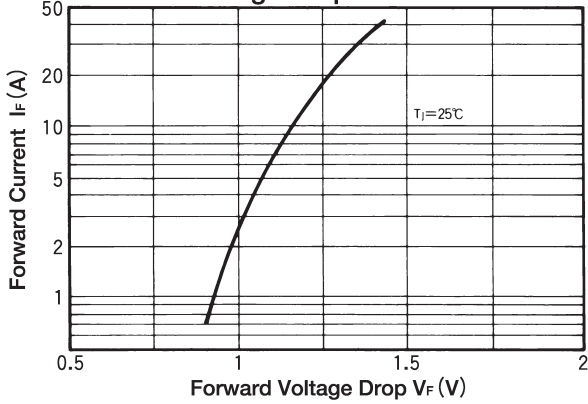
Symbol	Item	Ratings		Unit
		DF20AA120	DF20AA160	
V_{RRM}	Repetitive Peak Reverse Voltage	1200	1600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	1300	1700	V

Symbol	Item	Conditions	Ratings	Unit	
I_D	Output current (D.C.)	Three phase. full wave. $T_c=119^\circ\text{C}$	20	A	
I_{FSM}	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	220/240	A	
T_j	Junction Temperature		$-40 \sim +150$	$^\circ\text{C}$	
T_{stg}	Storage Temperature		$-40 \sim +125$	$^\circ\text{C}$	
V_{ISO}	Isolation Breakdown Voltage (R.M.S.)	Main Terminal to case 1minute	2500	V	
	Mounting Torque	Mounting (M6)	Recommended Value 2.5~3.9 (25~40)	4.7 (48)	N·m (kgf·cm)
		Terminal	Tub Terminal #250	—	
	Mass	Typical Value	90	g	

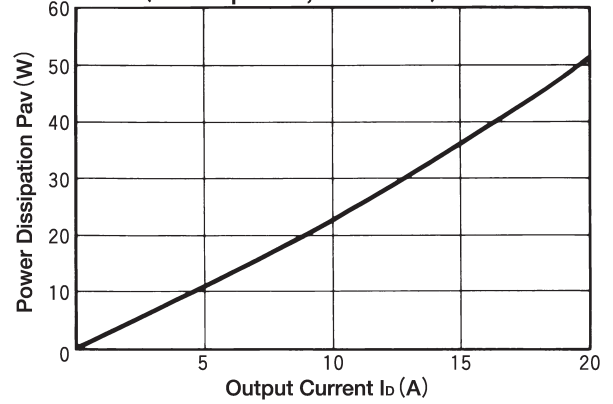
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	$T_j=150^\circ\text{C}$ at V_{RRM}	3.0	mA
V_{FM}	Forward Voltage Drop, max.	$I_{FM}=20\text{A}$, $T_j=25^\circ\text{C}$ Inst. measurement	1.25	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.6	$^\circ\text{C/W}$

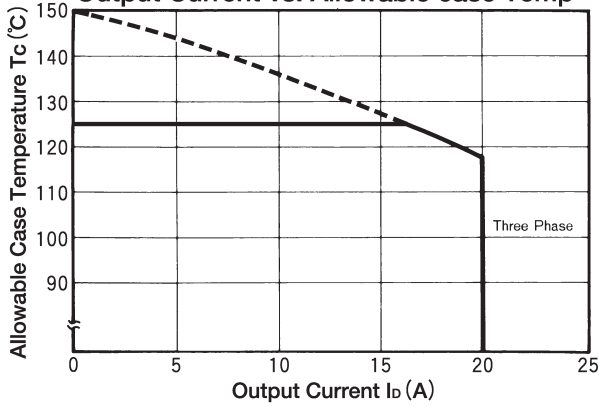
Forward Voltage Drop max.



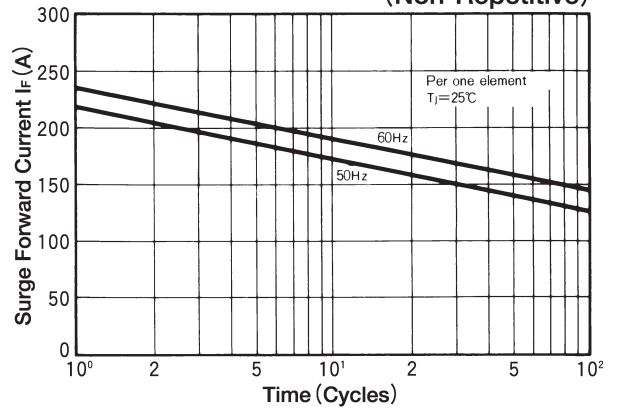
Output Current vs. Power Dissipation, max. (Three phase, full wave)



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

