

## DIODE(THREE PHASES BRIDGE TYPE)

# DF100AA120/160

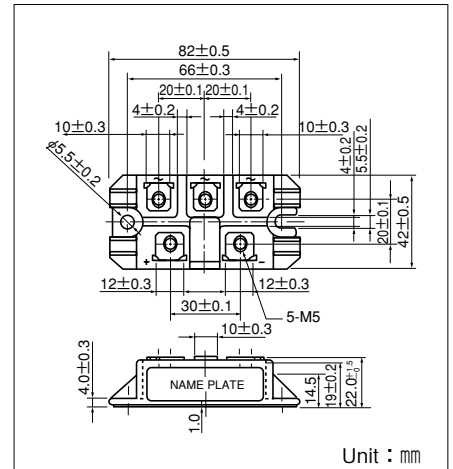
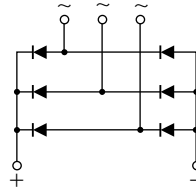
UL:E76102(M)

Power Diode Module **DF100AA** 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 100Amp ( $T_c=102^\circ\text{C}$ ) 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

### (Applications)

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



### Maximum Ratings

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

Symbol	Item	Ratings		Unit
		DF100AA120	DF100AA160	
$V_{RRM}$	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. $T_c=102^\circ\text{C}$	100	A	
$I_{FSM}$	Surge Forward Current	$\frac{1}{2}$ cycle, 50/60Hz, Peak value, non-repetitive	910/1000	A	
$I^2t$	$I^2t$ (for fusing)	Value for one cycle of surge current	4100	$\text{A}^2\text{S}$	
$T_j$	Operating Junction Temperature		$-40$ to $+150$	$^\circ\text{C}$	
$T_{stg}$	Storage Temperature		$-40$ to $+125$	$^\circ\text{C}$	
$V_{iso}$	Isolation Voltage	Terminal to case, AC RMS 1minute	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.	
$I_{RRM}$	Repetitive Peak Reverse Current	$T_j=150^\circ\text{C}$ at $V_{RRM}$			15	mA
$V_{FM}$	Forward Voltage Drop	$T_j=25^\circ\text{C}$ , $I_F=100\text{A}$ , Inst. measurement			1.2	V
$R_{th(j-c)}$	Thermal Resistance	Junction to case			0.2	$^\circ\text{C}/\text{W}$

