

DIODE(THREE PHASES BRIDGE TYPE)

DF75AA120/160

TOP



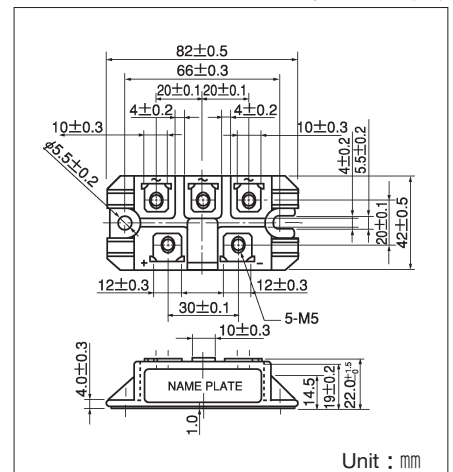
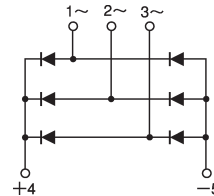
UL;E76102 (M)

Power Diode Module **DF75AA** 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 75Amp ($T_c = 100^\circ\text{C}$) Repetitive peak reverse voltage is up to 1600V.

- $T_{j\text{Max}} = 150^\circ\text{C}$
- Isolated mounting base
- High reliability by unique glass passivation

(Applications)

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



Maximum Ratings

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

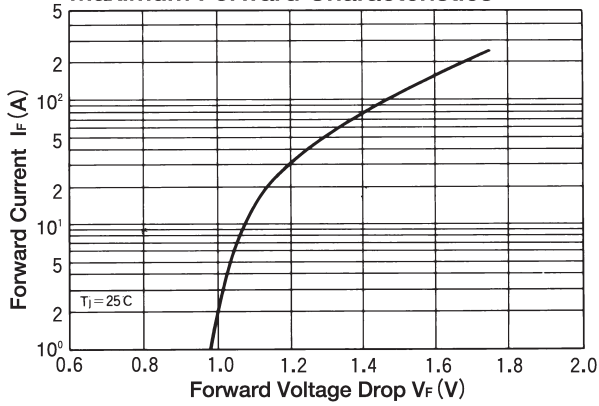
Symbol	Item	Ratings		Unit
		DF75AA120	DF75AA160	
V_{RRM}	Repetitive Peak Reverse Voltage	1200	1600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	1300	1700	V

Symbol	Item	Conditions	Ratings	Unit	
I_D	Output Current (D.C.)	Three Phase full wave. $T_c = 100^\circ\text{C}$	75	A	
I_{FSM}	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	910/1000	A	
I^2t	I^2t	Value for one of surge current	4100	A^2S	
T_j	Operating 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.)	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	

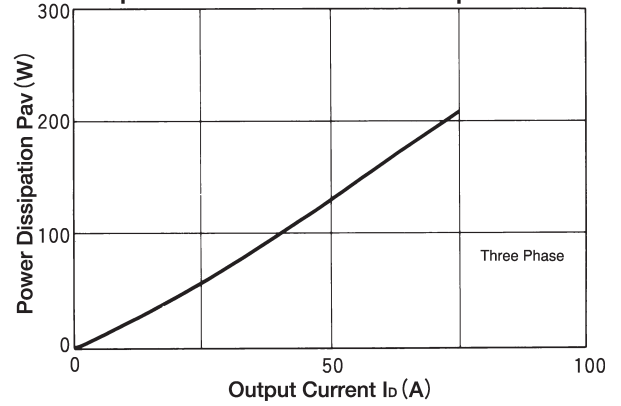
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	$T_j = 150^\circ\text{C}$ at V_{RRM}	10.0	mA
V_{FM}	Forward Voltage Drop, max.	$T_j = 25^\circ\text{C}$, $I_{FM} = 75\text{A}$, Inst. measurement	1.40	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.24	$^\circ\text{C}/\text{W}$

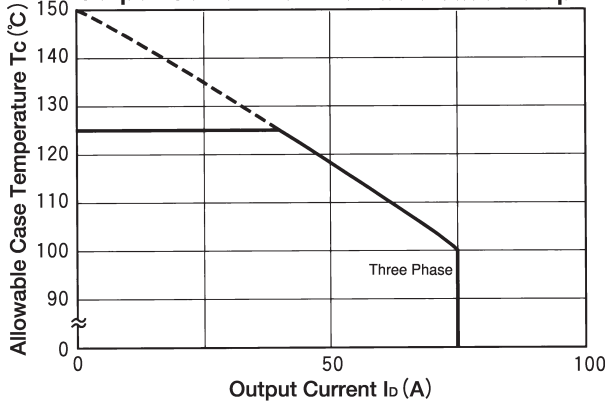
Maximum Forward Characteristics



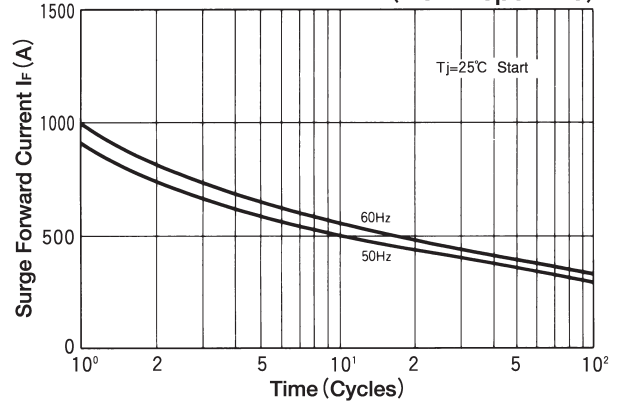
Output Current vs. Power Dissipation



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

