

## DIODE(THREE PHASES BRIDGE TYPE)

# DF60AA120/160

TOP



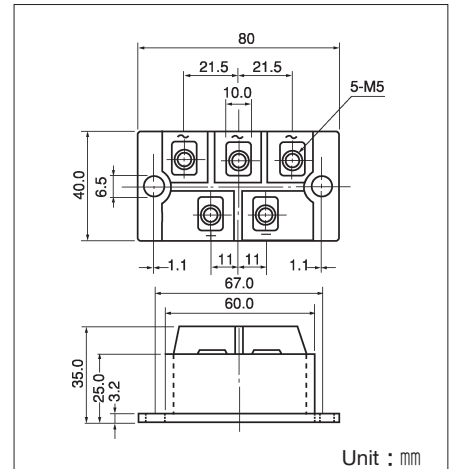
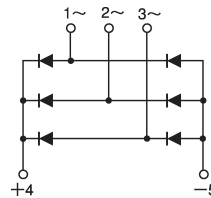
UL;E76102 (M)

Power Diode Module **DF60AA** 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 60Amp ( $T_c=112^\circ\text{C}$ ). 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



Unit : mm

### Maximum Ratings

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

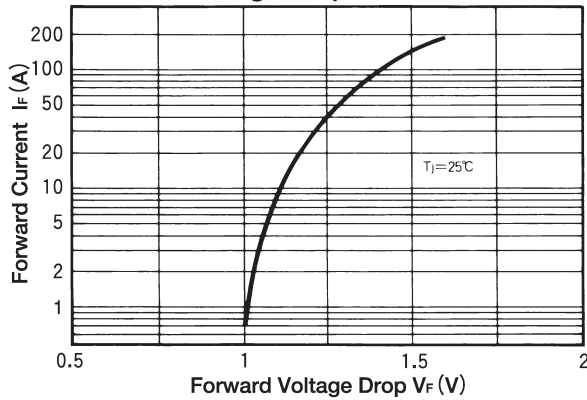
Symbol	Item	Ratings		Unit
		DF60AA120	DF60AA160	
$V_{RRM}$	Repetitive Peak Reverse Voltage	1200	1600	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	1300	1700	V

Symbol	Item		Conditions	Ratings	Unit
$I_D$	Output current (D.C.)		Three phase. full wave. $T_c=112^\circ\text{C}$	60	A
$I_{FSM}$	Surge Forward Current		1 cycle, 50/60Hz, peak value, non-repetitive	910/1000	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 (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	
	Mass		Typical Value	200	g

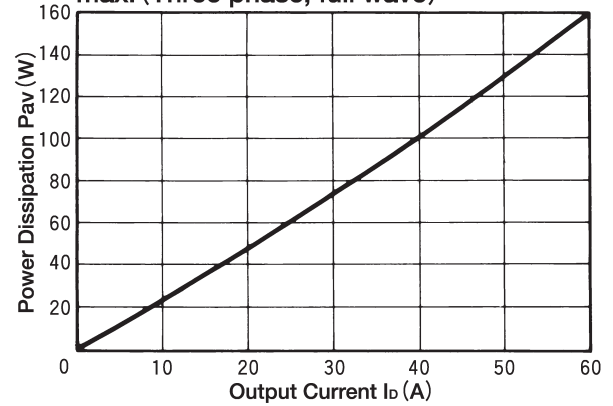
### Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
$I_{RRM}$	Repetitive Peak Reverse Current, max.	$T_j=150^\circ\text{C}$ at $V_{RRM}$	12.0	mA
$V_{FM}$	Forward Voltage Drop, max.	$I_{FM}=60\text{A}$ , $T_j=25^\circ\text{C}$ Inst. measurement	1.3	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.24	$^\circ\text{C/W}$

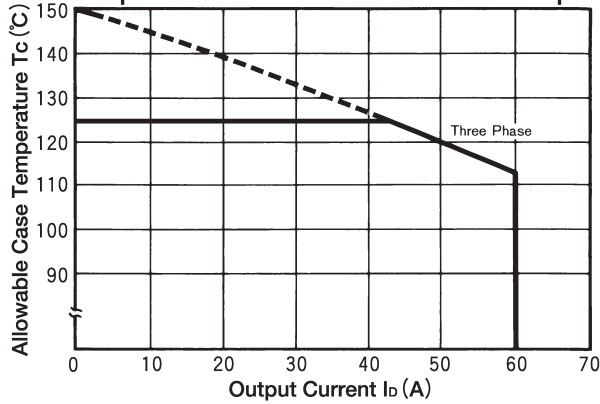
Forward Voltage Drop max.



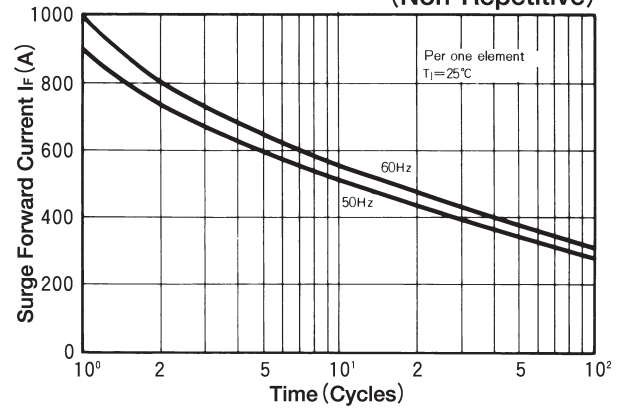
Output Current vs. Power Dissipation, max. (Three phase, full wave)



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

