

## DIODE(THREE PHASES BRIDGE TYPE)

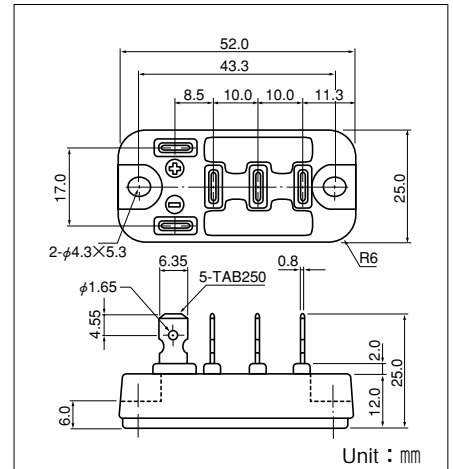
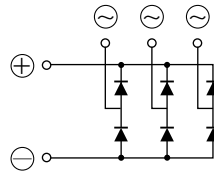
# DF20DB40/80

Power Diode Module **DF20DB** 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 ( $T_c=97^\circ\text{C}$ ) Repetitive peak reverse voltage is up to 800V.

- $T_{j\text{Max}}=150^\circ\text{C}$
- 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



### Maximum Ratings

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

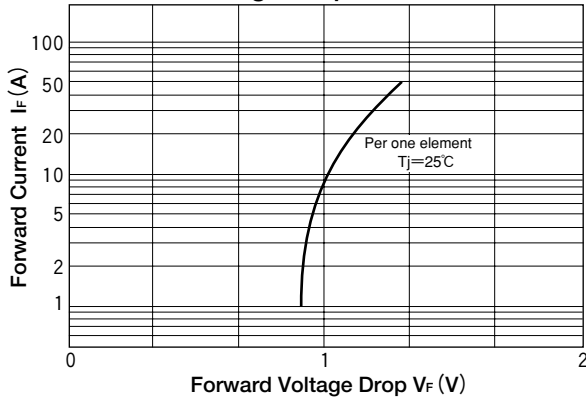
Symbol	Item	Ratings		Unit
		DF20DB40	DF20DB80	
$V_{RRM}$	Repetitive Peak Reverse Voltage	400	800	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	500	900	V

Symbol	Item	Conditions	Ratings	Unit
$I_D$	Output current (D.C.)	Three phase. full wave. $T_c=97^\circ\text{C}$	20	A
$I_{FSM}$	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	320/350	A
$T_j$	Junction Temperature		-40 to +150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature		-40 to +125	$^\circ\text{C}$
$V_{iso}$	Isolation Breakdown Voltage (R.M.S.)	Main Terminal to case 1minute	2000	V
	Mounting Torque (M4)	Recommended Value 1.0-1.4 (10-14)	1.5 (15)	N·m (kgf·cm)
	Mass	Typical Value	32	g

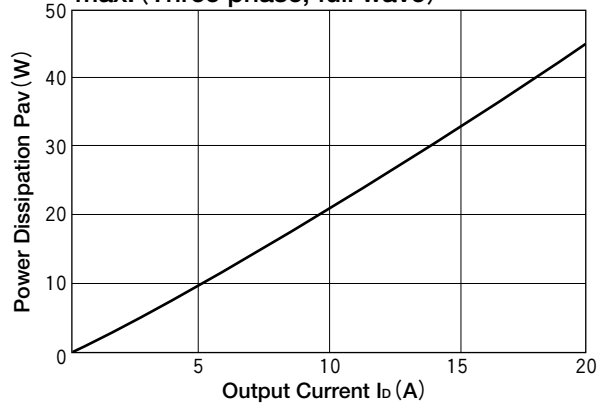
### Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
$I_{RRM}$	Repetitive Peak Reverse Current, max.	$T_j=150^\circ\text{C}$ at $V_{RRM}$	1.5	mA
$V_{FM}$	Forward Voltage Drop, max.	$I_{FM}=20\text{A}$ , $T_j=25^\circ\text{C}$ Inst. measurement	1.1	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	1.2	$^\circ\text{C/W}$

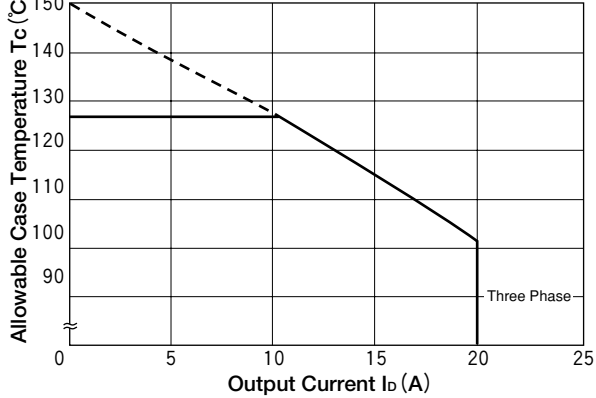
**Forward Voltage Drop max.**



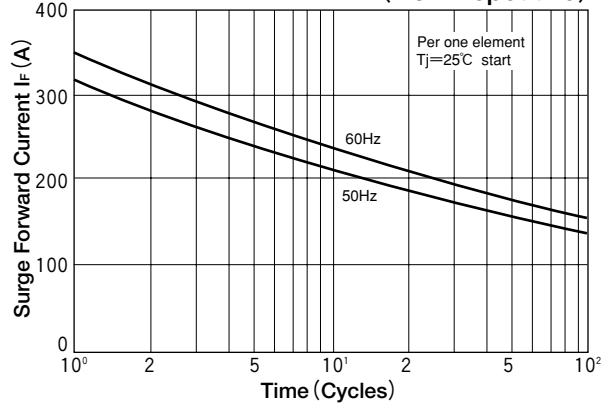
**Output Current vs. Power Dissipation, max. (Three phase, full wave)**



**Output Current vs. Allowable case Temp**



**Cycle Surge Forward Current Rating (Non-Repetitive)**



**Transient Thermal Impedance (max)**

