

DIODE(THREE PHASES BRIDGE TYPE)

DF30DB40/80

TOP

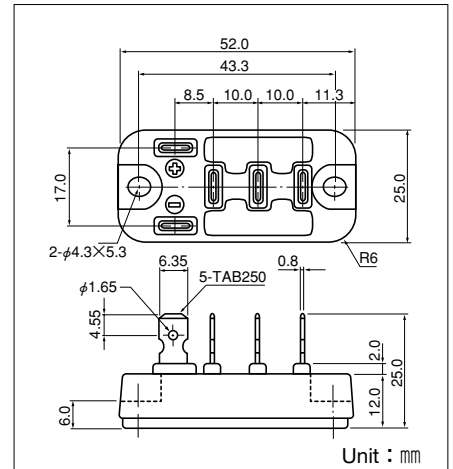
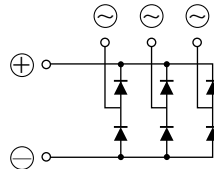


Power Diode Module **DF30DB** is designed for three phase full wave rectification, which has six diodes connected in a three phase bridge configuration. The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction output DC current is 30Amp ($T_c=83^\circ\text{C}$) 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)

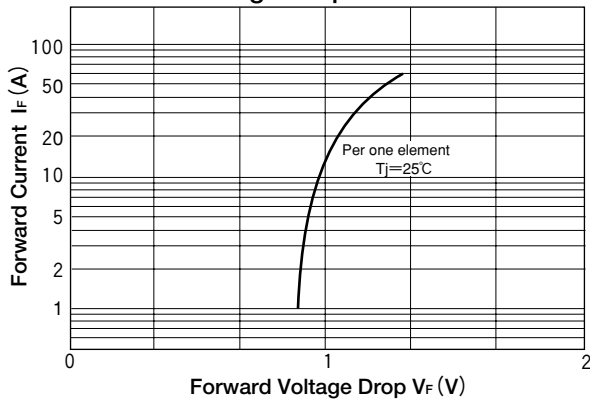
Symbol	Item	Ratings		Unit
		DF30DB40	DF30DB80	
V_{RRM}	Repetitive Peak Reverse Voltage	400	800	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	500	900	V

Symbol	Item	Conditions	Ratings	Unit
I_D	Output current (D.C.)	Three phase. full wave. $T_c=83^\circ\text{C}$	30	A
I_{FSM}	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	365/400	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

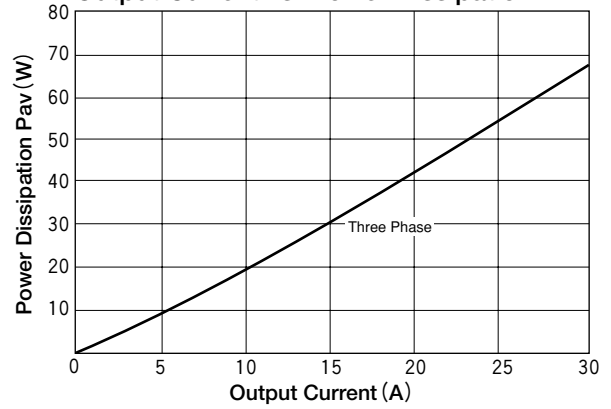
Electrical Characteristics

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.	$I_{FM}=30\text{A}$, $T_j=25^\circ\text{C}$ Inst. measurement	1.1	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	1.0	$^\circ\text{C/W}$

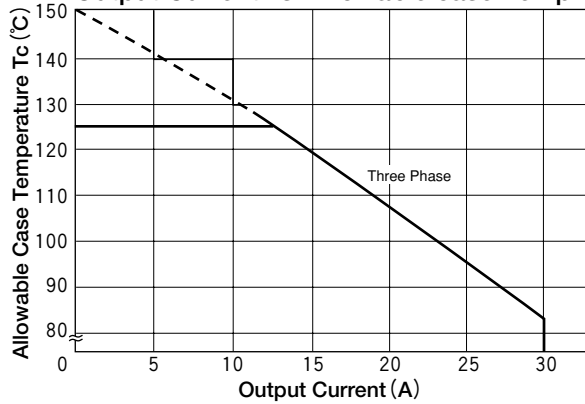
Forward Voltage Drop max.



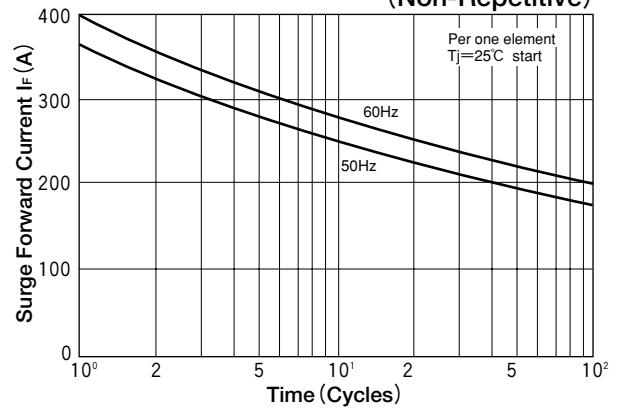
Output Current vs. Power Dissipation



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

