

DIODE(THREE PHASES BRIDGE TYPE)

DF50BA40/80

TOP



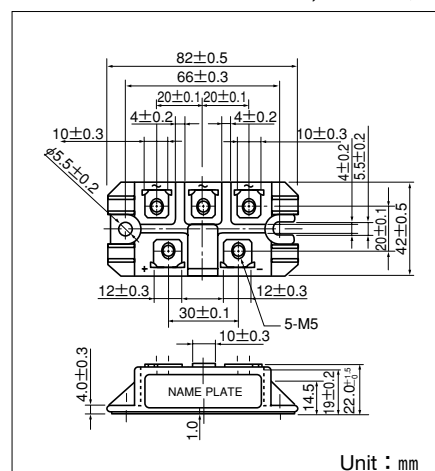
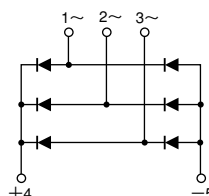
UL;E76102 (M)

Power Diode Module **DF50BA** 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 50Amp ($T_c=114^{\circ}\text{C}$) 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

(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
		DF50BA40	DF50BA80	
V_{RRM}	Repetitive Peak Reverse Voltage	400	800	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	480	960	V

Symbol	Item		Conditions	Ratings	Unit
I_D	Output Current (D.C.)		Three phase full wave. $T_c: 114^{\circ}\text{C}$	50	A
I_{FSM}	Surge Forward Current		1cycle, 50/60Hz, peak value, non-repetitive	640/700	A
I^2t	I^2t		Value for one cycle of surge current	2000	A^2S
T_j	Operating 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.)		A.C. 1 minute	2500	V
	Mounting Torque	Monting (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$)
		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}			4.0	mA
V_{FM}	Forward Voltage Drop	$T_j=25^{\circ}\text{C}$, $I_{FM}=50\text{A}$, Inst measurement			1.2	V
$R_{th(j-c)}$	Thermal Impedance	Junction to case			0.3	$^{\circ}\text{C}/\text{W}$

