

## DIODE(THREE PHASES BRIDGE TYPE)

# DF50BA40/80

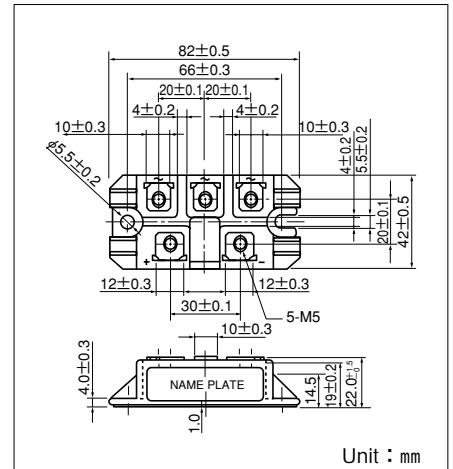
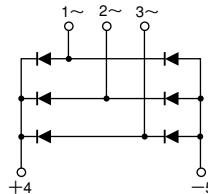
UL:E76102(M)

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	$\text{A}^2\text{S}$	
$T_j$	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)	N·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	$^\circ\text{C}/\text{W}$

