

# DIODE(THREE PHASES BRIDGE TYPE)

## DF40BA40/80

TOP



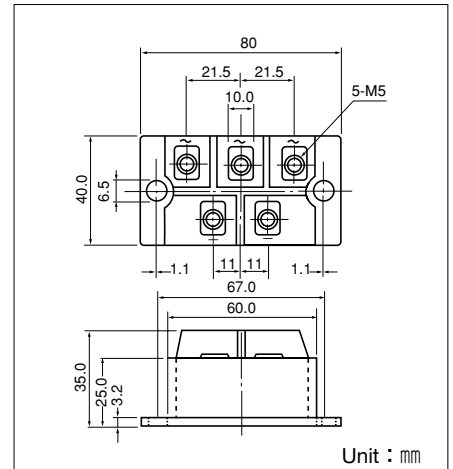
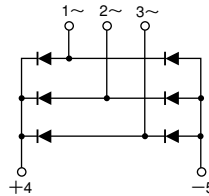
UL;E76102 (M)

Power Diode Module **DF40BA** 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 40Amp ( $T_c=119^\circ\text{C}$ ) 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)

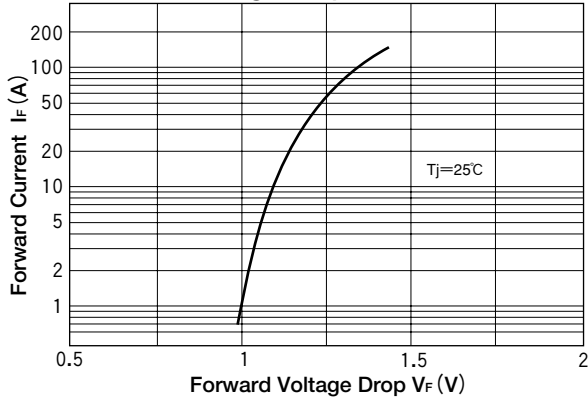
Symbol	Item	Ratings		Unit
		DF40BA40	DF40BA80	
$V_{RRM}$	Repetitive Peak Reverse Voltage	400	800	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	480	960	V

Symbol	Item	Conditions	Ratings	Unit	
$I_D$	Output current (D.C.)	Three phase. full wave. $T_c=119^\circ\text{C}$	40	A	
$I_{FSM}$	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	640/700	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	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	

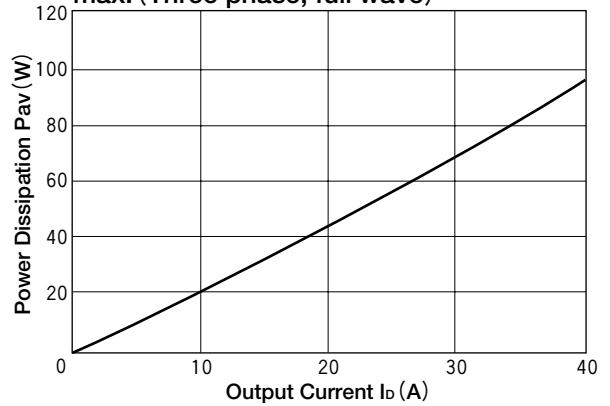
**Electrical Characteristics**

Symbol	Item	Conditions	Ratings	Unit
$I_{RRM}$	Repetitive Peak Reverse Current, max.	$T_j=150^\circ\text{C}$ at $V_{RRM}$	4.0	mA
$V_{FM}$	Forward Voltage Drop, max.	$I_{FM}=40\text{A}$ , $T_j=25^\circ\text{C}$ Inst. measurement	1.2	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.32	$^\circ\text{C/W}$

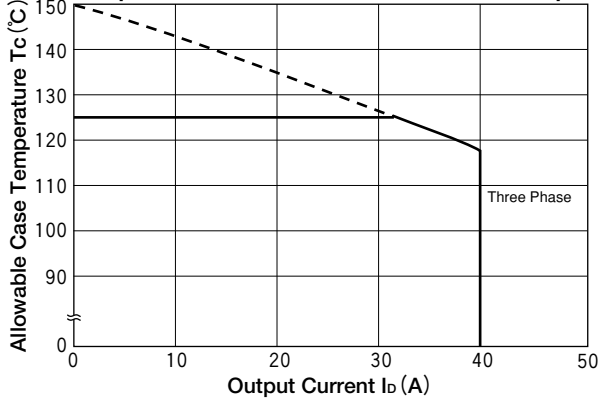
Forward Voltage Drop max.



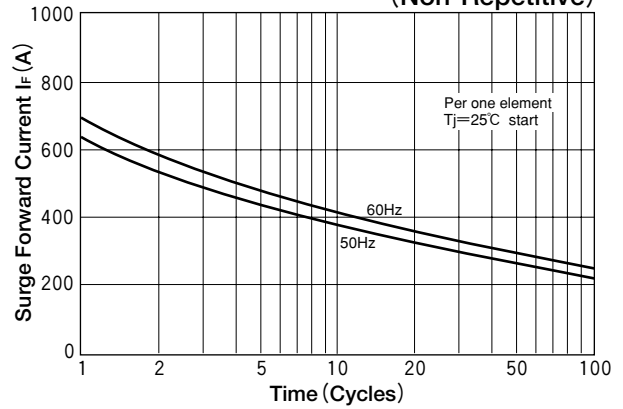
Output Current vs. Power Dissipation, max. (Three phase, full wave)



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

