DIODE(THREE PHASES BRIDGE TYPE)

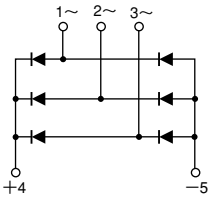
DF40AA120/160

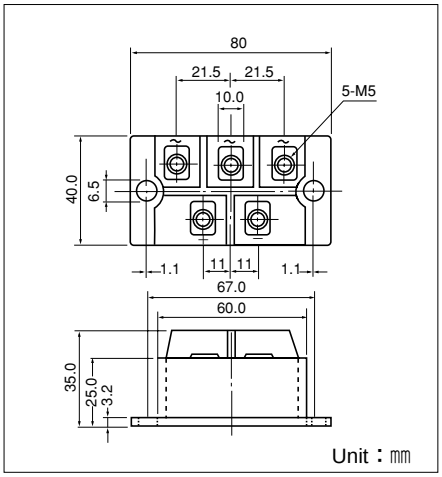
UL;E76102(M)

Power Diode Module **DF40AA** 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 (Tc=116℃) Repetitive peak reverse voltage is up to 1,600V.

- TjMax=150℃
- Isolated Mounting Base
- High reliability by unique glass passivation

(**Applications**)
AC. DC Motor Drive/AVR/Switching
—for three phase rectification





■Maximum Ratings

(Tj=25℃ unless otherwise specified)

Symbol	Item	Ratings		Unit
		DF40AA120	DF40AA160	
VRRM	Repetitive Peak Reverse Voltage	1200	1600	V
VRSM	Non-Repetitive Peak Reverse Voltage	1300	1700	V

Symbol	Item		Conditions	Ratings	Unit
ID	Output current (D.C.)		Three phase. full wave. Tc=116℃	40	A
IFSM	Surge Forward Current		1 cycle, 50/60Hz, peak value, non-repetitive	640/700	A
Tj	Junction Temperature			−40 to +150	℃
Tstg	Storage Temperature			−40 to +125	℃
VISO	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
IRRM	Repetitive Peak Reverse Current, max.	Tj=150℃ at VRRM	8.0	mA
VFM	Forward Voltage Drop, max.	IFM=40A, Tj=25℃ Inst. measurement	1.3	V
Rth(j-c)	Thermal Impedance, max.	Junction to case	0.32	℃/W

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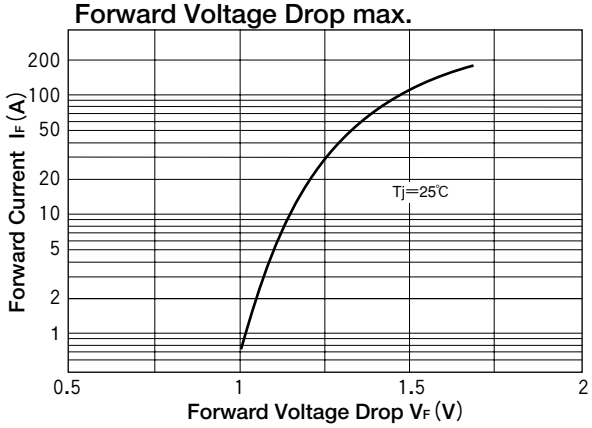
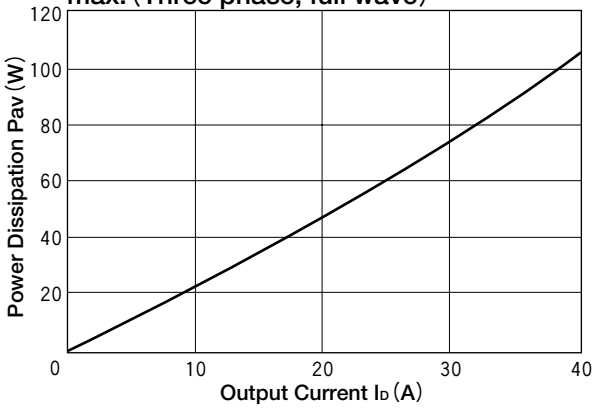
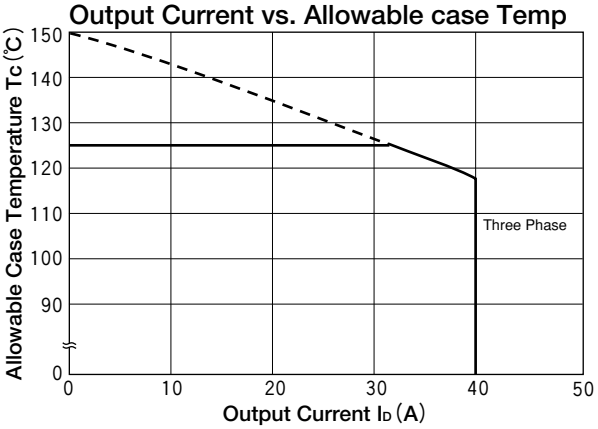
Forward Voltage Drop max.



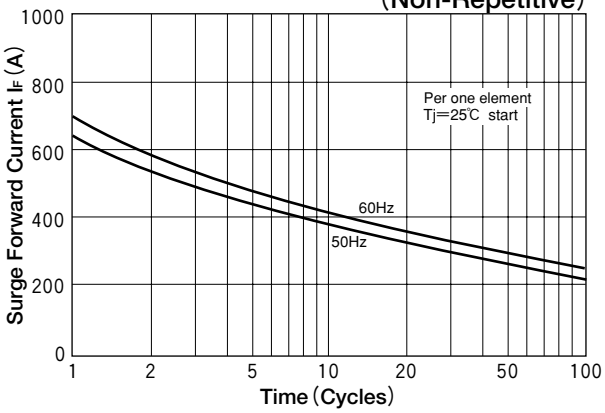
Output Current vs.Power Dissipation, max. (Three phase, full wave)



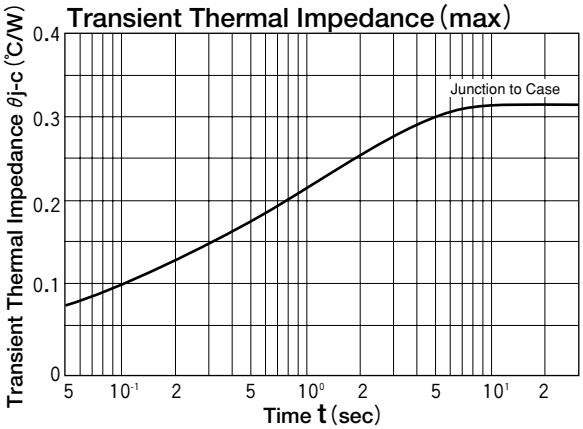
Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)



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