

# DF75AA120/160

UL; E76102

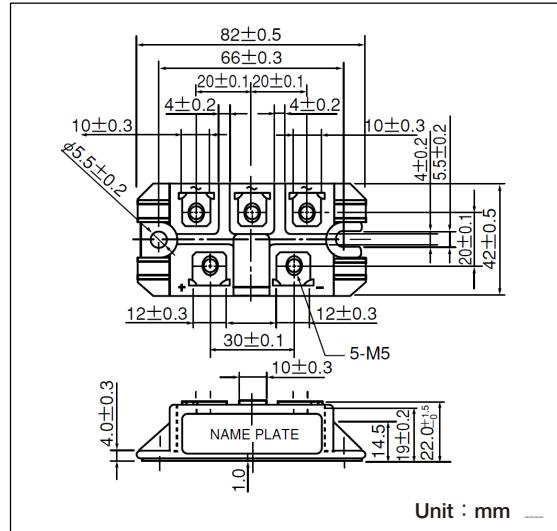
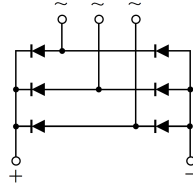
《Features》

Power Diode Module DF75AA 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 75Amp (Tc=100°C) Repetitive peak reverse voltage is up to 1600V.

- TjMax = 150°C
- Isolated mounting base
- High reliability by unique glass passivation

《Applications》

- AC, DC Motor Drive / AVR / Switching-for three phase rectification



■ Maximum Ratings (Tj=25°C unless otherwise specified)

Item	Symbol	Unit	DF75AA120	DF75AA160
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	1200	1600
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	V	1300	1700

Item	Symbol	Unit	Ratings	Conditions
Output Current (D.C.)	I <sub>D</sub>	A	75	Three phase full wave, T <sub>C</sub> =100°C
Surge forward current	I <sub>FSM</sub>	A	910/1000	1/2cycle, 50/60Hz, peak value, non-repetitive
I <sup>2</sup> t	I <sup>2</sup> t	A <sup>2</sup> s	4100	Value for one cycle of surge current
Operating Junction Temperature	T <sub>j</sub>	°C	-40 to +150	
Storage Temperature	T <sub>stg</sub>	°C	-40 to +125	
Isolation Breakdown Voltage (R.M.S.)	V <sub>ISO</sub>	V	2500	A.C., 1minute
Mounting Torque	Mounting (M5)	N·m (kgf·cm)	2.7(28)	Recommended Value 1.5 to 2.5(15 to 25)
	Terminal (M5)		2.7(28)	Recommended Value 1.5 to 2.5(15 to 25)
Mass		g	160	Typical value

■ Electrical Characteristics (Tj=25°C unless otherwise specified)

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Repetitive Peak Reverse Current	I <sub>RRM</sub>	mA			10	T <sub>j</sub> =150°C, V <sub>R</sub> =V <sub>RRM</sub>
Forward Voltage Drop	V <sub>FM</sub>	V			1.4	I <sub>F</sub> =75A, Inst. measurement
Threshold Voltage	V <sub>(TO)</sub>	V			0.85	T <sub>j</sub> =150°C
Dynamic Resistance	r <sub>t</sub>	mΩ			3.8	T <sub>j</sub> =150°C
Thermal Resistance	R <sub>th(j-c)</sub>	°C/W			0.24	Junction to Case
Interface Thermal Resistance	R <sub>th(c-f)</sub>	°C/W			0.08	Case to Heat sink Thermal conductivity(Silicon grease) ≒ 7 × 10 <sup>-3</sup> [W/cm·°C]

