DIODE(THREE PHASES BRIDGE TYPE)

DF100LA/LB80/160

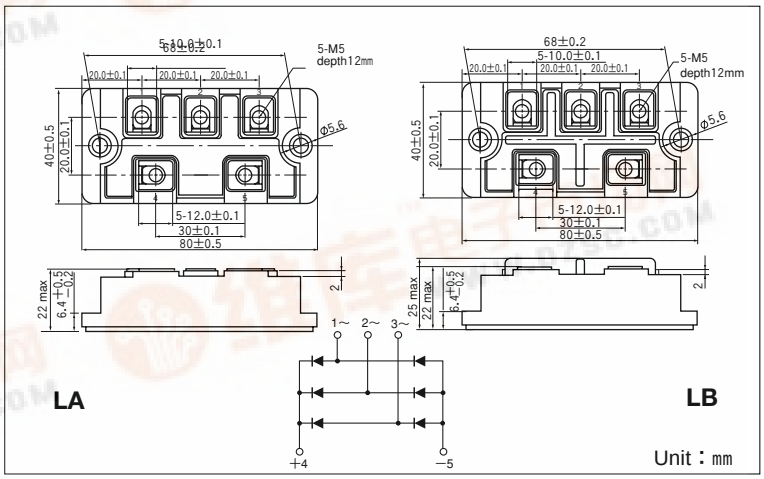
Power Diode Module **DF100LA/LB** is designed for three phase full wave rectification, which has six diodes connected in a three phase bridge configuration. The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction output DC current is 100Amp (Tc=90℃) Repetitive peak reverse voltage is up to 1600V.

- TjMAX=150℃
- Isolated Mounting Base

(Applications)

AC. DC Motor Drive/AVR/Switching

—for three phase rectification



■Maximum Ratings

(Tj=25℃ unless otherwise specified)

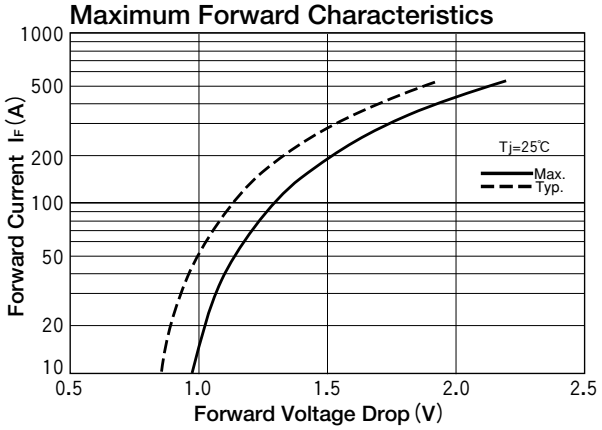
Symbol	Item	Ratings		unit
		DF100LA/LB80	DF100LA/LB160	
VRRM	Repetitive Peak Reverse Voltage	800	1600	V
VRSM	Non-Repetitive Peak Reverse Voltage	960	1700	V

Symbol	Item		Conditions	Ratings	unit
ID	Output Current (D.C.)		Three phase full wave, Tc=90℃	100	A
IFSM	Surge Forward Current		½cycle, 50/60Hz, Peak value, non-repetitive	1186/1300	A
Tj	Operating Junction Temperature			−40 to +150	℃
Tstg	Storage Temperature			−40 to +125	℃
VISO	Isolation Breakdown Voltage (R.M.S.)		A.C. 1minute	2500	V
	Mounting torque	Mounting (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass		Typical Value	100	g

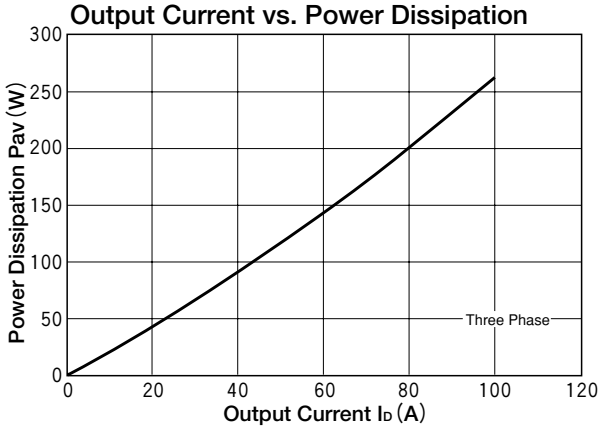
■Electrical Characteristics

Symbol	Item	Conditions	Ratings	unit
IRRM	Repetitive Peak Reverse Current, max.	Tj=150℃, VR=VRRM	12	mA
VFM	Forward Voltage Drop, max.	IF=100A, Inst. measurement	1.30	V
Rth(j-c)	Thermal Impedance, max.	Junction to case	0.23	℃/W

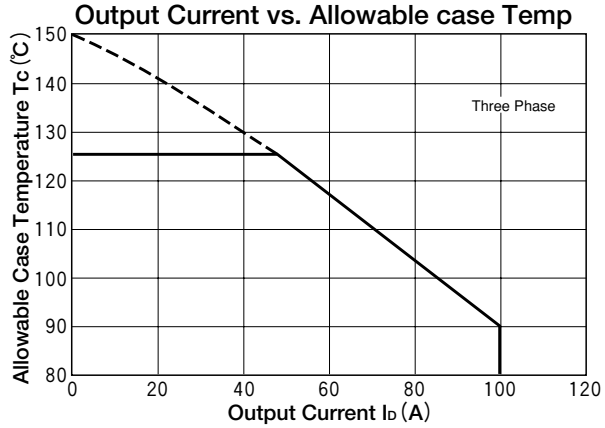
Maximum Forward Characteristics



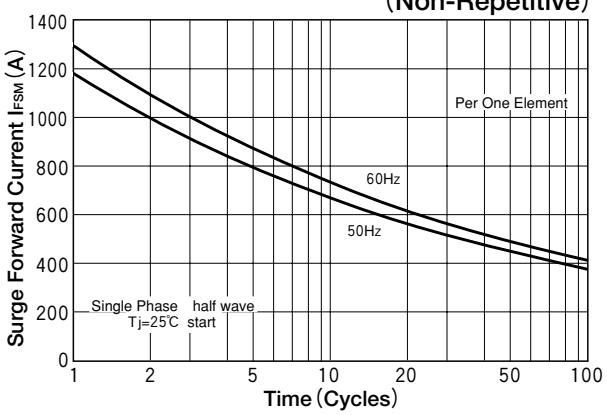
Output Current vs. Power Dissipation



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance