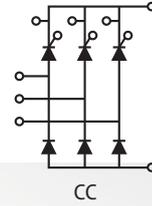
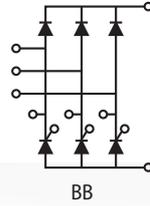


3-Phase Mixed Bridge Module

SFF200BB80
SFF200CC80
(200A 800V)



Applications

- ▶ Engine Generator
- ▶ Engine Welding Equipment
- ▶ Inverter for Industrial Use
- ▶ Electric Power Regulator
- ▶ Dimmer Equipment



UL Compliant 
UL File No. E76102

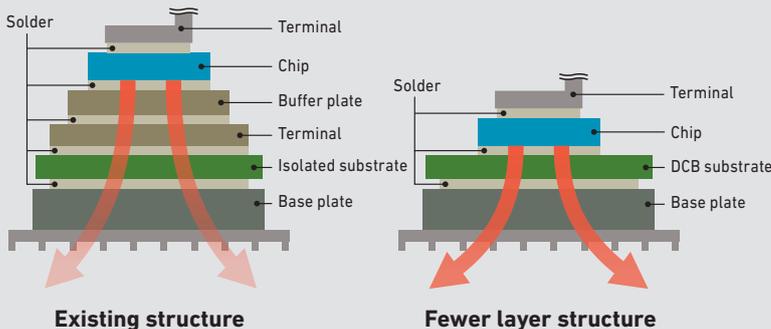
Features

■ Diode/Thyristor 3-phase bridge module

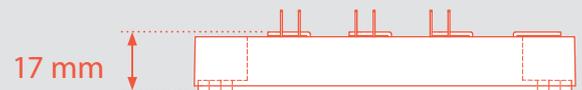
By connecting a thyristor to one side arm of a three-phase bridge, DC output can be controlled by the bridge module. (Two types of connection available)

■ Reduced internal structure for improved heat dissipation $R_{th(j-c)} = 0.06^{\circ}\text{C/W}$

Reduces thermal stress on the thyristor and diode thus improving the power cycle capability.



■ High current capacity within a 17 mm low profile package



■ High durability

The transfer mold package ensures durability and high resistance to exterior elements.

■ 100% lead-free solder

Maximum Ratings

T_j=25°C unless otherwise specified

Item	Symbol	Unit	SFF200BB80/SFF200CC80	
* Repetitive Peak Reverse Voltage	V _{RRM}	V	800	
* Non-Repetitive Peak Reverse Voltage	V _{RSM}	V	960	
Item	Symbol	Unit	Rating	Conditions
* Average On-State Current	I _{T(AV)} I _{F(AV)}	A	200	3-phase full-wave rectifier circuit, T _c =92°C
* Surge Forward Current	I _{TSM} I _{FSM}	A	2100/2300	50Hz 10ms/60Hz 8.3ms Commercial single-phase half-wave 1 cycle, Peak value, Peak value
* I ² t (for fusing)	I ² t	A ² s	22000	50Hz 10ms/60Hz 8.3ms Commercial single-phase half-wave 1 cycle
Critical Rate of Rise of On-State Current	di/dt	A/μs	200	T _j =125°C, Non-repetitive V _D =800V, I _C =200mA, di _G /dt=1A/μs
* Operating Junction Temperature	T _j	°C	-40 ~ +125	
* Storage Temperature	T _{stg}	°C	-40 ~ +125	
* Dielectric Strength	V _{iso}	V	2500	AC, RMS 1min.
* Mass	—	g	280	Typical value

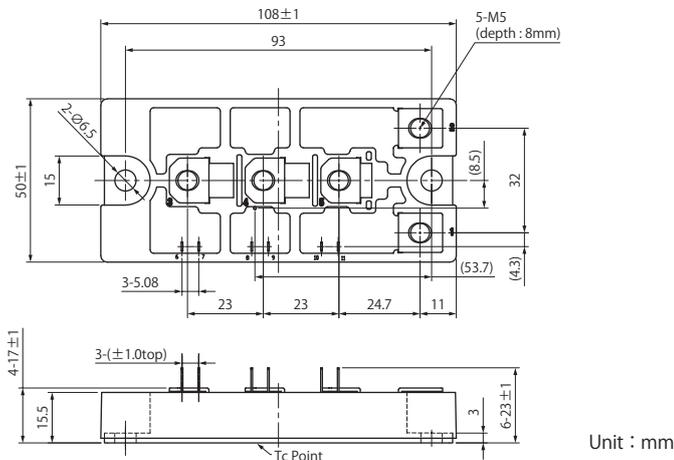
Electrical Characteristics

T_j=25°C unless otherwise specified

Item	Symbol	Unit	Rating	Conditions
* Repetitive Peak Reverse Current	I _r	mA	15	T _j =125°C, V _R =V _{RRM} (Per Leg)
Off-state Current	I _D	mA	15	T _j =125°C, V _D =V _{DRM} (Per Leg)
* On-State Voltage	V _{TM} V _{FM}	V	1.35	I _T =200A (Per Leg)
Threshold Voltage	V _(TO)	V	1.06	T _j =25°C
			0.87	T _j =125°C
Gate Trigger Current	I _{GT}	mA	150	V _D =6V, I _T =1A
Gate Trigger Voltage	V _{GT}	V	3	V _D =6V, I _T =1A
* Thermal Resistance	R _{th(j-c)}	°C/W	0.06	Junction to case (Per Module)
* Interface Thermal Resistance	R _{th(c-f)}	°C/W	0.05	Case to fin (Per Module), Thermal conductivity of Si grease 9×10 ⁻³ [W/cm·°C]

Items marked with * in the above apply to the diode and thyristor parts. The other items apply mainly to the thyristor part.

■ Please contact one of our branches or sales offices if you need a high pressure resistant product.



Other Products

3-Phase Diode Bridge

SIP	DF-NA series 20/30A	
DIP	DF-NB series 60/75/100A	
h = 17 mm package	DF-AC series 75/100A	
	DF-AE series 150/200A	
h = 22 mm package	DF-AA/BA/AB series 75/100/150/200A	
	DF-LA/LB series 60/75/100A	

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