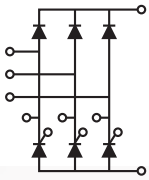
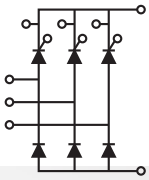
SanRex LEADING THE NEW POWER ELECTRONICS ▸▸

3-Phase Mixed Bridge Module

SFF200BB80
SFF200CC80
(200A 800V)


BB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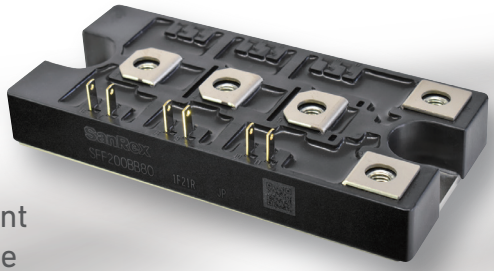
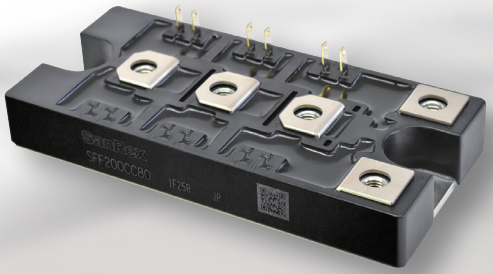




Applications

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

UL Compliant
UL File No.E76102

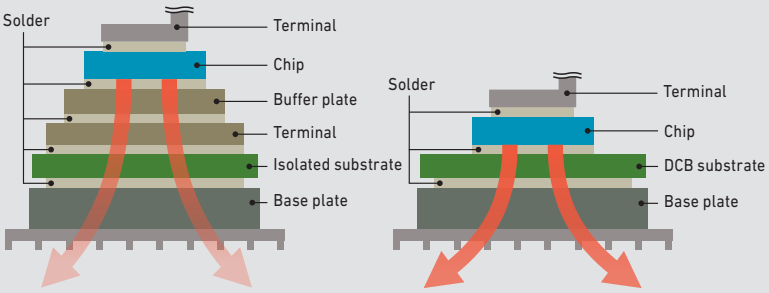
Features

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)

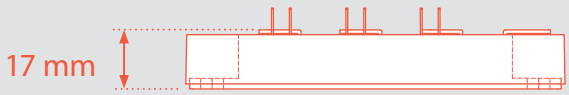
Reduced internal structure for improved heat dissipation Rth(j-c)=0.06℃/W

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



Existing structure　　Fewer layer structure

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

3-Phase Mixed Bridge Module
SFF200BB80/SFF200CC80

Power semiconductor for Industry

Maximum Ratings

Tj=25℃ 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℃
＊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^2t (for fusing)	I^2t	A^2s	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	Tj=125℃, Non-repetitive V_D=800V, I_C=200mA, dI_G/dt=1A/μs
＊Operating Junction Temperature	Tj	℃	- 40 ～ +125	
＊Storage Temperature	Tstg	℃	- 40 ～ +125	
＊Dielectric Strength	V_{ISO}	V	2500	AC, RMS 1min.
＊Mass	—	g	280	Typical value

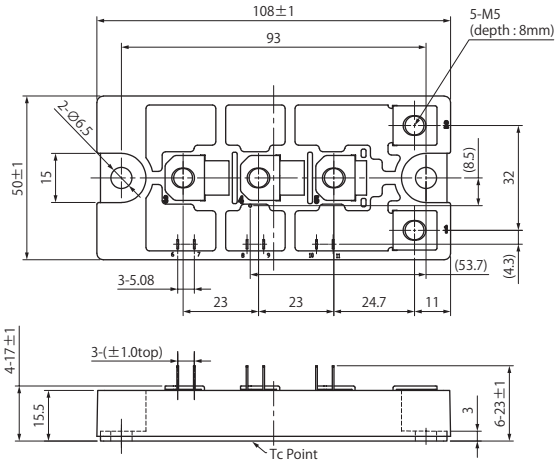
Electrical Characteristics

Tj=25℃ unless otherwise specified

Item	Symbol	Unit	Rating	Conditions
＊Repetitive Peak Reverse Current	I_R	mA	15	Tj=125℃、V_R=VRRM (Per Leg)
Off-state Current	I_D	mA	15	Tj=125℃、V_D=VDRM (Per Leg)
＊On-State Voltage	V_{TM} V_{FM}	V	1.35	I_T=200A (Per Leg)
Threshold Voltage	$V_{(TO)}$	V	1.06	Tj=25℃
			0.87	Tj=125℃
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	Rth(j-c)	℃/W	0.06	Junction to case（Per Module）
＊Interface Thermal Resistance	Rth(c-f)	℃/W	0.05	Case to fin（Per Module), Thermal conductivity of Si grease 9×10^{-3}[W/cm・℃]

tems 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.



Unit：mm

Other Products

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

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●IT-related systems (Communication power supply, UPS) ●Industrial systems (Surface treatment, Electric Power Controller, Welding machine, Lighting power supply)

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