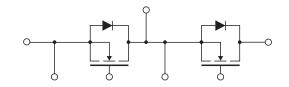


SiC MOSFET Module (2 in 1)

"Techno Block" series FCA100AC120 (100A/1200V) FCA150AC120 (150A/1200V)



Applications

- ▶ Industrial Inverters
- ▶ DC-DC Converters
- ▶ EV Battery Chargers
- Resonant Power Supply

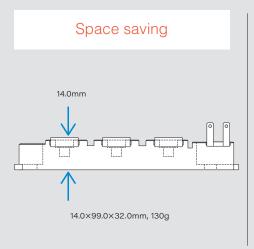


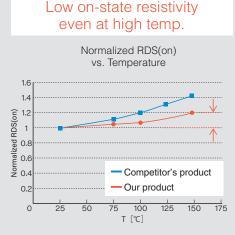
Features

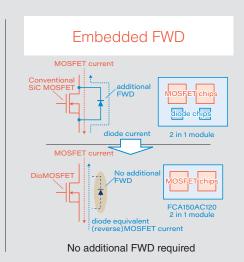
- Small
- No additional FWD required
- Low power loss thanks to low RDS(on) and low switching loss
- Long-term reliability under power cycle stress
- Safe gate driving at high frequency operation through optimized VGS(th) (4.0V)
- Top level short circuit tolerance enabling safety design of equipment
- Low temperature dependency of RDS(on) reducing thermal runaway risks at high temperature operation

Superior performance with "Techno Block*1" and DioMOS^{*2} technologies

- *1 Our original semiconductor package uses transfer molding and both side solder process, achieving small footprint and excellent heat dissipation
- *2 SiC MOSFET features FWD (flywheel diode) equivalent function developed by Panasonic







SANSHA ELECTRIC MFG.

Power semiconductor for Industry

Maximum Ratings

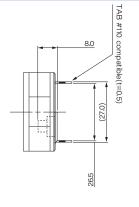
Tj=25℃ unless otherwise specified

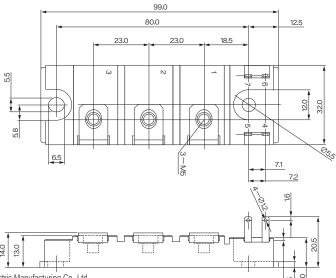
ltem	Symbol	Unit	Rati	ings	Conditions		
	Symbol	Offic	FCA100AC120	FCA150AC120	FCA100AC120	FCA150AC120	
Drain-Source Voltage	VDSS	V	12	00			
Continuous Drain Current	lo	А	100	150	V _G s=20V, T _C =100℃	V _G s=20V, Tc=90℃	
Total Power Dissipation	Ptot	W	780	1135	Tc=25℃	Tc=25℃	
Operating Junction Temperature	Tj	℃	-40 ~	+150			
Isolation Voltage	Viso	V	25	00	AC 60Hz 1min		

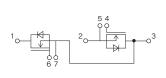
Electrical Characteristics

Tj=25℃ unless otherwise specified

1) Lo e anicos othermise specifica											
ltem	Symbol	Unit	Ratings						Conditions		
			Min.		Тур.		Max.		Conditions		
			FCA100AC	FCA150AC	FCA100AC	FCA150AC	FCA100AC	FCA150AC	FCA100AC	FCA150AC	FCA100/150AC120
On-State Resistance Ros	Ros(on)	mΩ			6.8	4.1	14	9.3	lo	I _D =150A	V _{GS} =20V
	KDS (OII)	11122			7.4	4.5	15	10	=100A		V _{GS} =20V, Tj=150°C
Drain Cutoff Current	loss	μΑ					200	300			V _{DS} =1200V, V _{GS} =0V
Gate-Source Threshold Voltage	V _{GS} (th)	V	3	3	4	4	5	5	ID =3mA	I _D =4.5mA	V _{DS} =10V
Gate-Source Leakage Current	lgss	nA					200	300			V _{GS} =20V, V _{DS} =0V
Thermal Resistance	Rth (j-c)	°C/W					0.16	0.11			Junction to Case (per Leg)







· SanRex is a trademark or a registered trademark of Sansha Electric Manufacturing Co., Ltd.

Unit: mm

• Appearance and specifications of products are subject to change without notice for improvement reasons.

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