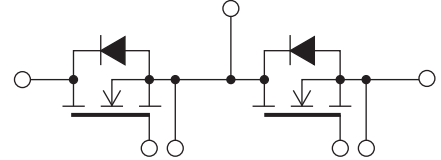


SiC MOSFET Module (Half-Bridge)

「Techno Block」 series
FCA300AD170 (300A, 1700V)



Applications

- ▶ Industrial Inverters
- ▶ Switching Power Supplies
- ▶ High Frequency Power Supplies etc.



UL Compliant 
UL File No.E76102

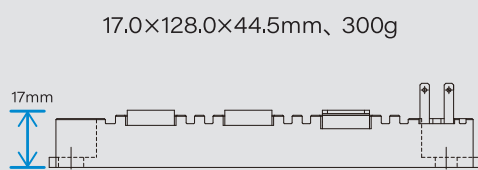
Features

- Achieves 1700V for further optimized circuit applications
- Compact and highly reliable
- No additional FWD (Flywheel Diode) required
- High short-circuit resistance
- Low on-resistance even at high temperatures
- High noise immunity

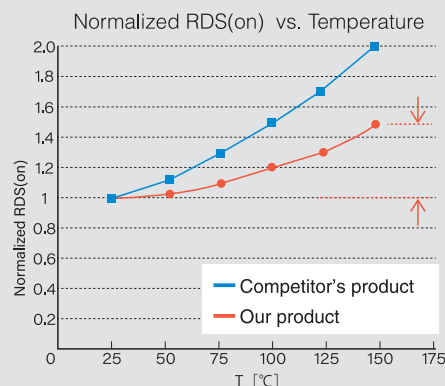
Module integrating SanRex proprietary “Techno Block”¹ package and DioMOS technology

^{*1} SanRex original semiconductor package adopts transfer molding design with double side solder joint, achieving compact footprint and excellent heat dissipation

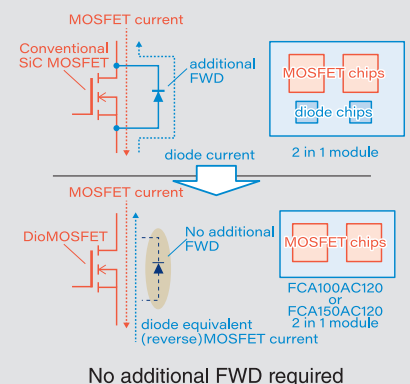
Outline drawing



Low on-state resistance even at high temp.



Built in FWD



Maximum Ratings

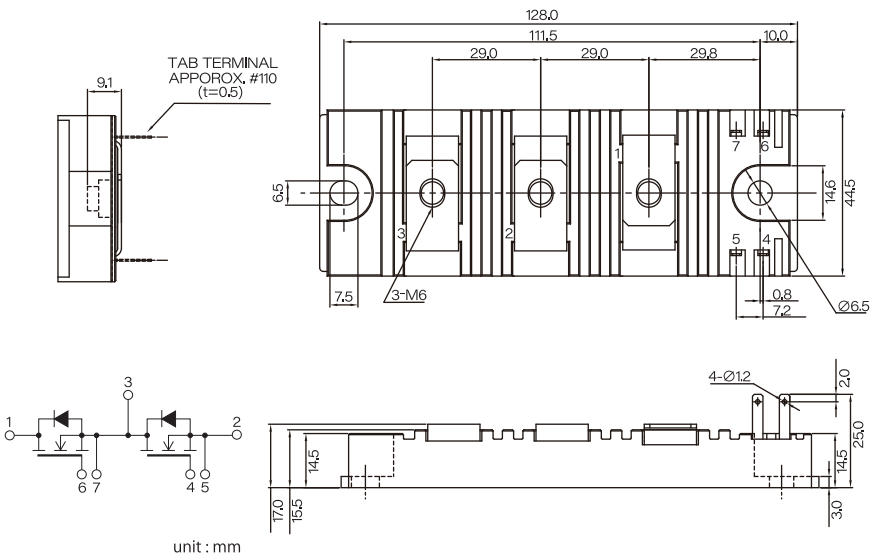
Tj=25°C unless otherwise specified

Item	Symbol	Unit	Ratings	Conditions
Drain-Source Voltage	V_{DS}	V	1700	
Drain Current	I_D	A	300	$V_{GS}=20V$, $T_c=90^{\circ}C$, DC
Total Allowable Loss	P_{tot}	W	1750	$T_c=25^{\circ}C$
Junction Temperature	T_j	$^{\circ}C$	-40 to +150	
Dielectric Strength	V_{iso}	V	4000	AC 60Hz 1min, Main Terminal to Case

Electrical Characteristics

Tj=25°C unless otherwise specified

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Drain-Source On-Resistance	$R_{DS(on)}$	m Ω		2.7	5.8	$V_{GS}=20V$, $I_D=300A$
				3.9	7.5	$V_{GS}=20V$, $I_D=300A$, $T_j=150^{\circ}C$
Drain Cutoff Current	I_{DSS}	μA			600	$V_{DS}=1700V$, $V_{GS}=0V$
Gate-Source Threshold Voltage	$V_{GS(th)}$	V	3	4	5.2	$V_{DS}=10V$, $I_D=9mA$
Gate Leakage Current	I_{GSS}	nA			600	$V_{GS}=20V$, $V_{DS}=0V$
Thermal Resistance	$R_{th(j-c)}$	$^{\circ}C/W$			0.07	Junction to Case (per Leg)

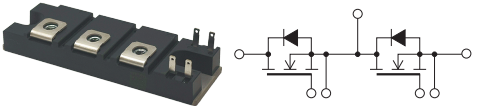


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- Appearance and specifications of products are subject to change without notice for improvement reasons.

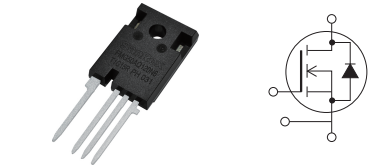
SanRex SiC MOSFET family

SiC MOSFET

Highly reliable 「Techno Block」 package
FCA150AC120/FCA100AC120 (150A/100A, 1200V)



FMG50AQ120N6 (50A, 1200V)



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