e-Front runners

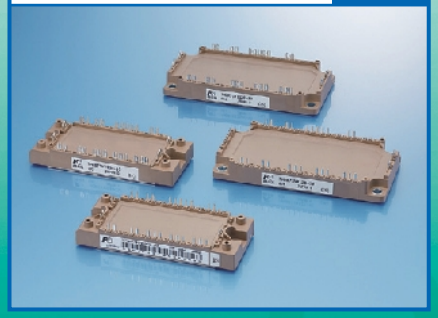
FUJI Power Semiconductors

IGBT Modules

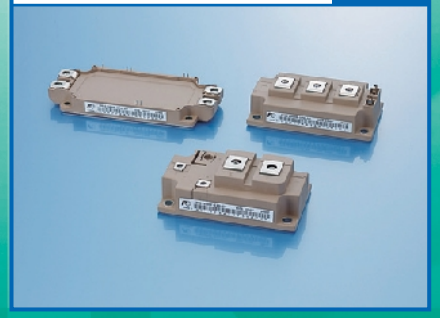
IGBT 6-pack Page 1



IGBT PIM Page 3



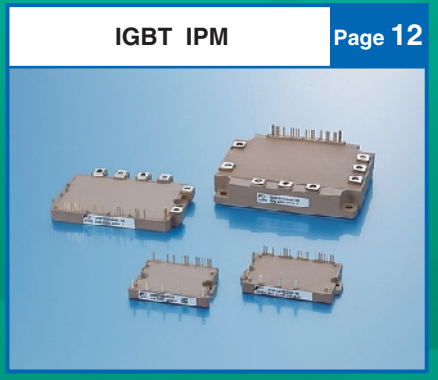
IGBT Standard 2-pack/1-pack Page 6



IGBT High Power Modules Page 7



IGBT IPM Page 12



IGBT Discretes Page 13



Fuji Electric Co., Ltd.

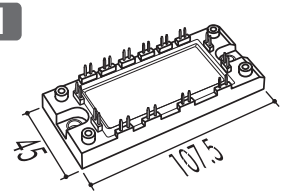
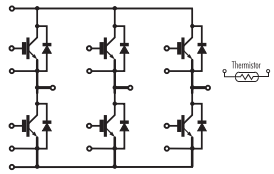
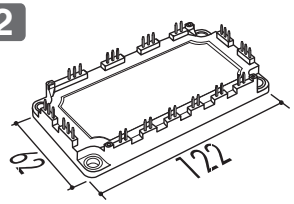
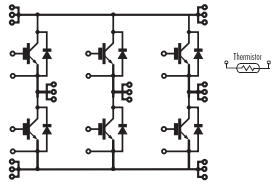
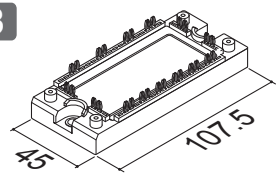
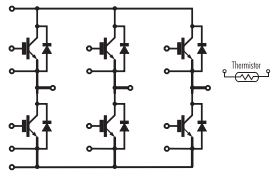
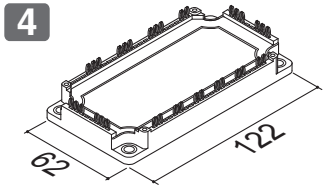
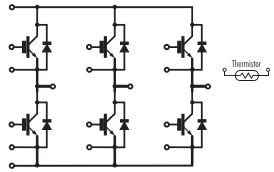
Jul. 2011
PMWW01f

e-Front runners

IGBT 6-pack

mm

With NTC

		Ic	600V Gen. 5 Planar-NPT	600V Gen. 6 Trench-FS	1200V Gen. 5 Trench-FS	1200V Gen. 6 Trench-FS	1700V Gen. 5 Trench-FS
1	 	35A			6MBI35U4A-120-50		
		50A		6MBI50VA-060-50	6MBI50U4A-120-50	6MBI50VA-120-50	
		75A	6MBI75U2A-060-50	6MBI75VA-060-50	6MBI75U4A-120-50	6MBI75VA-120-50	
		100A		6MBI100VA-060-50		6MBI100VA-120-50	
2	 	75A					
		100A	6MBI100U2B-060-50		6MBI100U4B-120-50	6MBI100VB-120-50	6MBI100U4B-170-50 *
		150A	6MBI150U2B-060-50	6MBI150VB-060-50	6MBI150U4B-120-50	6MBI150VB-120-50	6MBI150U4B-170-50 *
		180A				6MBI180VB-120-50	
		180A				6MBI180VB-120-55	
3	 	50A		6MBI50VW-060-50		6MBI50VW-120-50	
		75A		6MBI75VW-060-50		6MBI75VW-120-50	
		100A		6MBI100VW-060-50		6MBI100VW-120-50	
4	 	100A				6MBI100VX-120-50	
		150A		6MBI150VX-060-50		6MBI150VX-120-50	
		180A				6MBI180VX-120-50	
		180A				6MBI180VX-120-55	

Note: Suffix '-50' in production number indicates RoHS compliant.
6MBI180VB-120-55, 6MBI180VX-120-55; Premium type (Low Thermal Impedance Version)

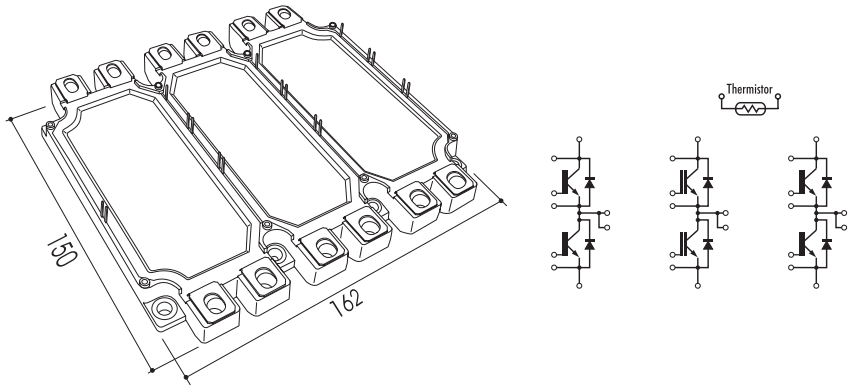
* Under development

IGBT 6-pack

mm

High power 6-pack

5



Ic	1200V		1700V	
	Gen. 5 Trench-FS	Gen. 6 Trench-FS	Gen. 5 Trench-FS	Gen. 6 Trench-FS
225A	6MBI225U4-120-50	6MBI225V-120-50	6MBI225U4-170	
300A	6MBI300U4-120-50	6MBI300V-120-50	6MBI300U4-170	6MBI300V-170-50 *
450A	6MBI450U4-120-50	6MBI450V-120-50	6MBI450U4-170	6MBI450V-170-50 *
550A		6MBI550V-120-50		

Note: Suffix '-50' in production number indicates RoHS compliant.

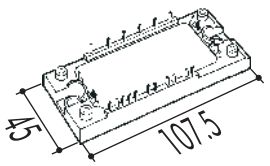
* Under development

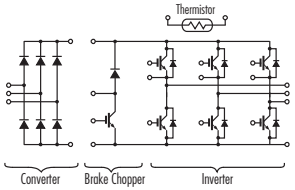
IGBT PIM (Power Integrated Module)

mm

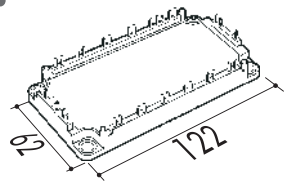
PIM

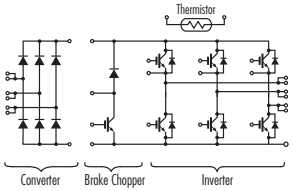
6





7





Ic	600V		1200V	
	Gen. 5 Trench/ Planar-NPT	Gen.6 Trench-FS	Gen. 5 Trench-FS	Gen.6 Trench-FS
10A				
15A				
25A			7MBR25UA120-50	7MBR25VA120-50
30A	7MBR30U2A060-50			
35A			7MBR35UA120-50	7MBR35VA120-50
50A	7MBR50U2A060-50	7MBR50VA060-50	7MBR50UA120-50	
35A			7MBR35UB120-50	7MBR35VB120-50
50A			7MBR50UB120-50	7MBR50VB120-50
75A	7MBR75U2B060-50	7MBR75VB060-50	7MBR75U4B120-50	7MBR75VB120-50
100A	7MBR100U2B060-50	7MBR100VB060-50	7MBR100U4B120-50	

Note: Suffix '-50' in production number indicates RoHS compliant.

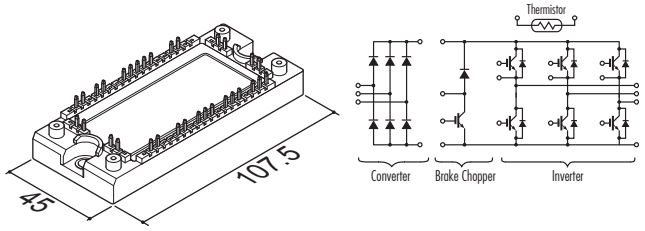
e-Front runners

IGBT PIM (Power Integrated Module)

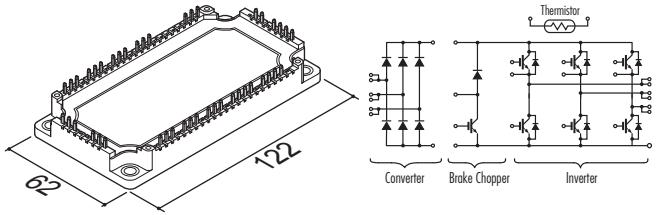
mm

PIM

8



9

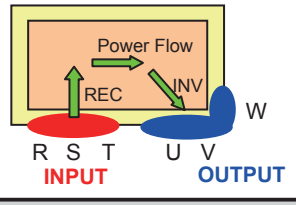


Ic	600V Gen. 6 Trench-FS	1200V Gen. 6 Trench-FS
25A		7MBR25VM120-50 7MBR25VP120-50
35A		7MBR35VM120-50 7MBR35VP120-50
50A	7MBR50VP060-50	7MBR50VM120-50 7MBR50VP120-50
75A	7MBR75VP060-50	
100A	7MBR100VP060-50	
50A		7MBR50VN120-50 7MBR50VR120-50
75A		7MBR75VN120-50 7MBR75VR120-50
100A	7MBR100VR060-50	7MBR100VN120-50 7MBR100VR120-50
150A	7MBR150VR060-50	7MBR150VN120-50 7MBR150VR120-50

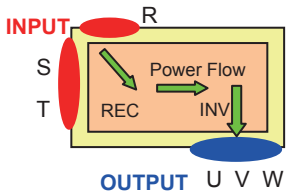
Note: Suffix '-50' in production number indicates RoHS compliant.

In/Out terminal Layout

7MBR□VM/VN□-50



7MBR□VP/VR□-50

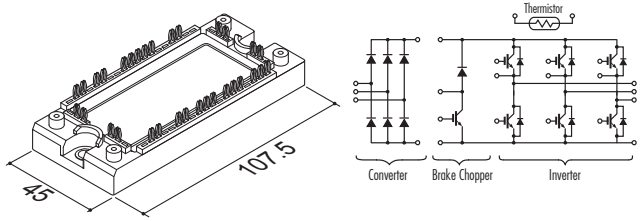


IGBT PIM (Power Integrated Module)

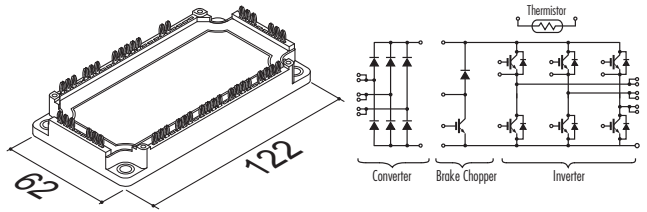
mm

PIM

10



11

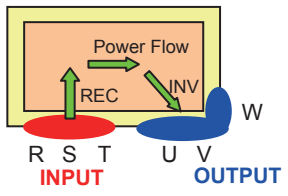


Ic	600V Gen. 6 Trench-FS	1200V Gen. 6 Trench-FS
25A		7MBR25VW120-50 7MBR25VY120-50
35A		7MBR35VW120-50 7MBR35VY120-50
50A	7MBR50VY060-50	7MBR50VW120-50 7MBR50VY120-50
75A	7MBR75VY060-50	
100A	7MBR100VY060-50	
50A		7MBR50VX120-50 7MBR50VZ120-50
75A		7MBR75VX120-50 7MBR75VZ120-50
100A	7MBR100VZ060-50	7MBR100VX120-50 7MBR100VZ120-50
150A	7MBR150VZ060-50	7MBR150VX120-50 7MBR150VZ120-50

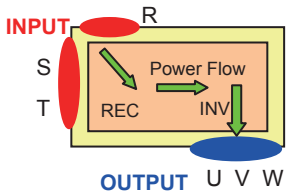
Note: Suffix '-50' in production number indicates RoHS compliant.

In/Out terminal Layout

7MBR□VW/VX□-50



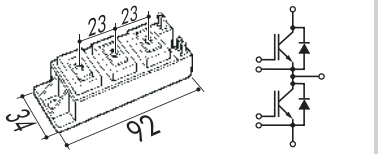
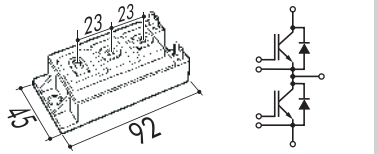
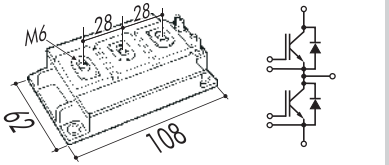
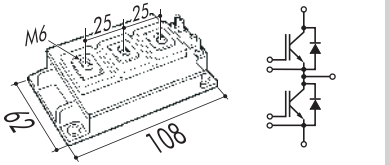
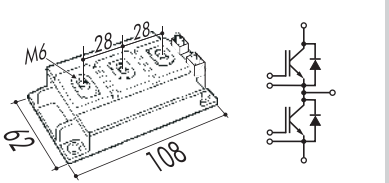
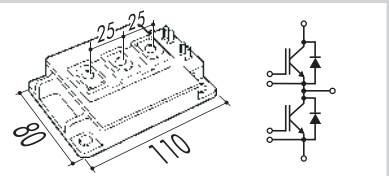
7MBR□VY/VZ□-50



e-Front runners

IGBT Standard 2-pack mm

2-pack

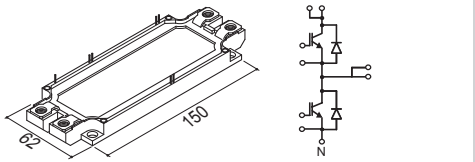
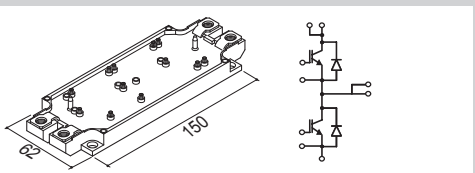
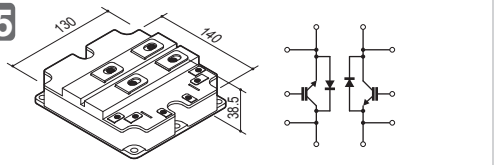
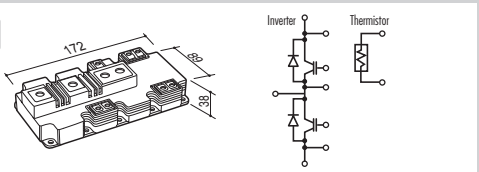
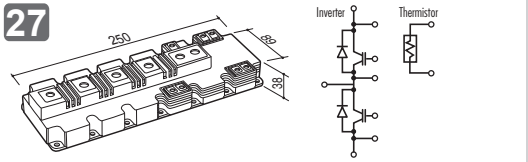
	Ic	600V Gen. 5 Planar-NPT	600V Gen. 6 Trench-FS	1200V Gen. 5 Trench-FS	1200V Gen. 6 Trench-FS	1700V Gen. 5 Trench-FS
12 13 	75A			2MBI75U4A-120-50	2MBI75VA-120-50 *	
	100A		2MBI100VA-060-50 *	2MBI100U4A-120-50	2MBI100VA-120-50 *	
	150A	2MBI150U2A-060-50	2MBI150VA-060-50 *	2MBI150U4A-120-50	2MBI150VA-120-50 *	
	200A	2MBI200U2A-060-50	2MBI200VA-060-50 *			
14 15 	100A					
	150A			2MBI150U4B-120-50	2MBI150VB-120-50	
	200A			2MBI200U4B-120-50	2MBI200VB-120-50	
	300A	2MBI300U2B-060-50	2MBI300VB-060-50			
	400A	2MBI400U2B-060-50	2MBI400VB-060-50			
16 	100A					
	150A					
	200A			2MBI200UC-120-50		
	300A			2MBI300UC-120-50		
17 18 	200A			2MBI200U4D-120-50		
	300A			2MBI300U4D-120-50	2MBI300VD-120-50	
	400A		2MBI400VD-060-50		2MBI400VD-120-50	
	600A		2MBI600VD-060-50			
19 20 	100A					2MBI100U4H-170-50
	150A			2MBI150U4H-120-50		2MBI150U4H-170-50
	200A			2MBI200U4H-120-50	2MBI200VH-120-50	2MBI200U4H-170-50
	300A			2MBI300U4H-120-50	2MBI300VH-120-50	2MBI300U4H-170-50
	400A			2MBI400U4H-120-50		2MBI400U4H-170-50
	450A				2MBI450VH-120-50	
21 22 	300A			2MBI300U4E-120	2MBI300VE-120-50	
	450A			2MBI450U4E-120	2MBI450VE-120-50	
	600A	2MBI600U2E-060	2MBI600VE-060-50		2MBI600VE-120-50	

Note: • Suffix '-50' in production number indicates RoHS compliant. • No. 12 14 16 17 19 21 : Gen.5 No. 13 15 18 20 22 : Gen.6 * Under development

e-Front runners

IGBT Standard 2-pack mm

2-pack

	Ic	1200V Gen. 5 Trench-FS	1200V Gen. 6 Trench-FS	1700V Gen. 5 Trench-FS	1700V Gen. 6 Trench-FS
23 	225A	2MBI225U4N-120-50	2MBI225VN-120-50	2MBI225U4N-170-50	
	300A	2MBI300U4N-120-50	2MBI300VN-120-50	2MBI300U4N-170-50	2MBI300VN-170-50
	450A	2MBI450U4N-120-50	2MBI450VN-120-50	2MBI450U4N-170-50	2MBI450VN-170-50
	550A				2MBI550VN-170-50
	600A		2MBI600VN-120-50		
24 	225A	2MBI225U4J-120-50	2MBI225VJ-120-50		
	300A	2MBI300U4J-120-50	2MBI300VJ-120-50		
	450A	2MBI450U4J-120-50	2MBI450VJ-120-50		
	550A				2MBI550VJ-170-50
	600A		2MBI600VJ-120-50		
25 	600A	2MBI600U4G-120	2MBI600VG-120 *	2MBI600U4G-170	2MBI600VG-170E *
	800A	2MBI800U4G-120	2MBI800VG-120 *	2MBI800U4G-170	2MBI800VG-170E *
	1200A	2MBI1200U4G-120	2MBI1200VG-120 *	2MBI1200U4G-170	2MBI1200VG-170E *
26 	600A		2MBI600VXA-120E-50		
	650A				2MBI650VXA-170E-50
	900A		2MBI900VXA-120P-50		
27 	1000A				2MBI1000VXB-170E-50
	1400A		2MBI1400VXB-120P-50		2MBI1400VXB-170E-50 * 2MBI1400VXB-170P-50 *

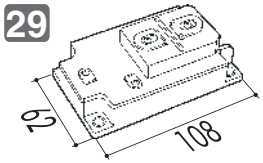
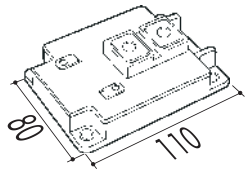
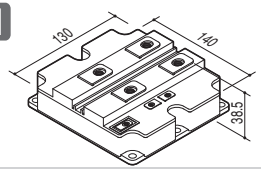
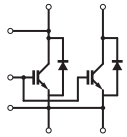
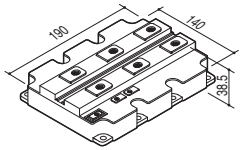
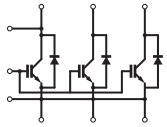
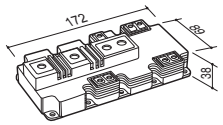
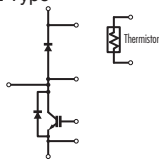
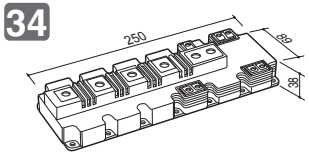
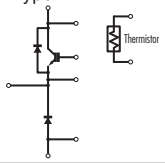
Note: Suffix '-50' in production number indicates RoHS compliant.

* Under development

e-Front runners

IGBT Standard 1-pack

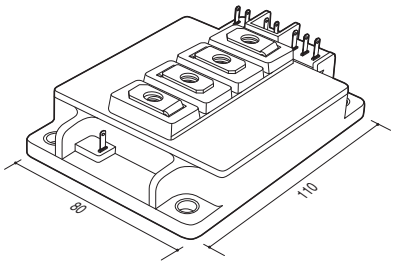
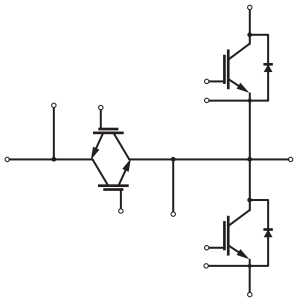
mm

		Ic	1200V Gen. 5 Trench-FS	1200V Gen. 6 Trench-FS	1700V Gen. 5 Trench-FS	1700V Gen. 6 Trench-FS
1-pack	28 29  	200A				
		300A	1MBI300U4-120			
		400A	1MBI400U4-120	1MBI400V-120-50		
		600A	1MBI600U4-120	1MBI600V-120-50		
		900A		1MBI900V-120-50		
	30  	600A	1MBI600U4B-120			
		800A	1MBI800U4B-120			
	31  	1200A	1MBI1200U4C-120	1MBI1200VC-120 *	1MBI1200U4C-170	1MBI1200VC-170E *
		1600A	1MBI1600U4C-120	1MBI1600VC-120 *	1MBI1600U4C-170	1MBI1600VC-170E *
		2400A		1MBI2400VC-120 *		1MBI2400VC-170E *
	32  	2400A	1MBI2400U4D-120	1MBI2400VD-120 *	1MBI2400U4D-170	1MBI2400VD-170E *
		3600A	1MBI3600U4D-120	1MBI3600VD-120 *	1MBI3600U4D-170	1MBI3600VD-170E *
Chopper	33  EL Type 	650A				1MBI650VXA-170EL-50 * 1MBI650VXA-170EH-50 *
	34  EH Type 	1000A				1MBI1000VXB-170EL-50 * 1MBI1000VXB-170EH-50 *
		1400A				

Note: • Suffix '-50' in production number indicates RoHS compliant. • No. 28 : Gen.5 No. 29 : Gen.6 * Under development

IGBT Advanced NPC 3-level Circuits

mm

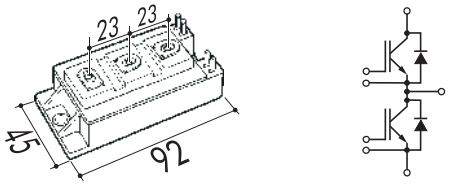
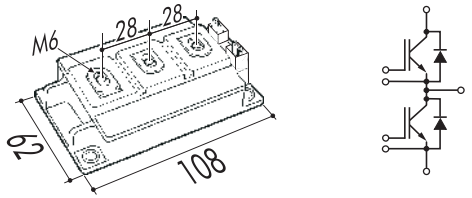
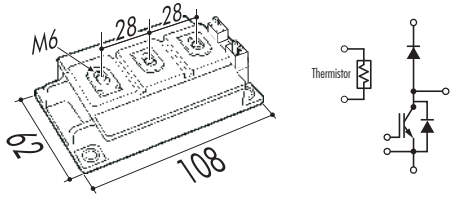
		Ic	600V	1200V
			Gen. 6 Trench-FS	Gen. 6 Trench-FS
3-level	35  	300A		4MBI300VG-120R-50
		400A	4MBI400VG-060R-50 *	

Note: Suffix '-50' in production number indicates RoHS compliant.

* Under development

IGBT High Speed Modules

mm

		Ic	1200V Gen. 6 Trench-FS
2 pack	36 	100A	2MBI100HB-120-50
	37 	150A	2MBI150HH-120-50
		200A	2MBI200HH-120-50
Chopper	38 	200A	1MBI200HH-120L-050 *
		300A	1MBI300HH-120L-050 *
		400A	1MBI400HH-120L-050 *

Note: Suffix '-50' in production number indicates RoHS compliant.

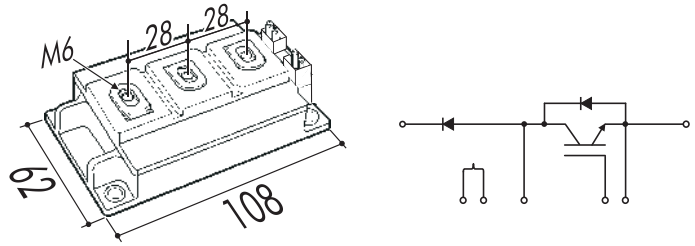
* Under development

IGBT Chopper

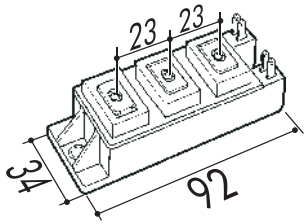
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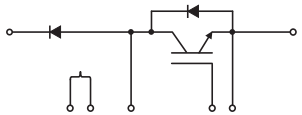
Chopper

39



40

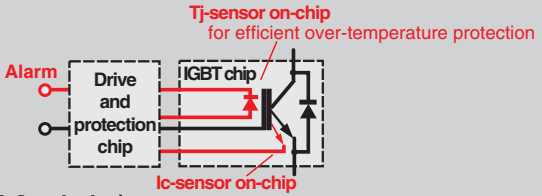




Ic	600V Gen.5 Planar-NPT	1200V Gen.5 Trench-FS
200A		1MBI200U4H-120L-50
300A	1MBI300U2H-060L-50	
50A		1MBI50U4F-120L-50
75A		1MBI75U4F-120L-50
100A		1MBI100U4F-120L-50

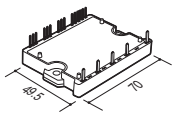
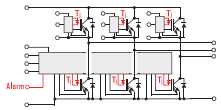
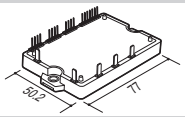
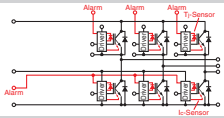
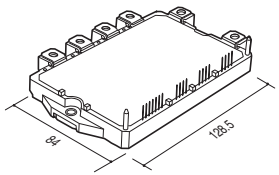
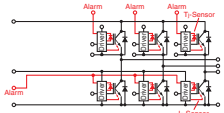
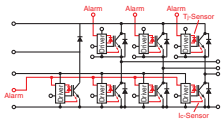
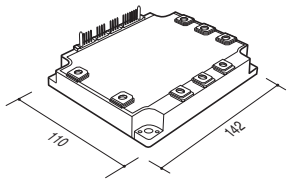
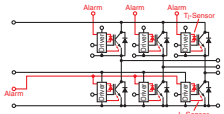
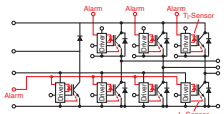
Note: Suffix '-50' in production number indicates RoHS compliant.

e-Front runners



IGBT IPM (Intelligent Power Module)

mm

			Ic	600V Gen. 6 Trench-FS	1200V Gen. 6 Trench-FS
Without brake-chopper	41		10A		6MBP10VAA120-50 *
			15A		6MBP15VAA120-50 *
			20A	6MBP20VAA060-50	
			25A		6MBP25VAA120-50 *
			30A	6MBP30VAA060-50	
			50A	6MBP50VAA060-50	
Without brake-chopper	42		25A		6MBP25VBA120-50
			35A		6MBP35VBA120-50
			50A	6MBP50VBA060-50	6MBP50VBA120-50
			75A	6MBP75VBA060-50	
Without brake-chopper	43		25A		6MBP25VDA120-50 *
			35A		6MBP35VDA120-50 *
			50A	6MBP50VDA060-50 *	6MBP50VDA120-50 *
			75A	6MBP75VDA060-50 *	6MBP75VDA120-50 *
			100A	6MBP100VDA060-50 *	6MBP100VDA120-50 *
			150A	6MBP150VDA060-50 *	
			200A	6MBP200VDA060-50 *	
With brake-chopper			25A		7MBP25VDA120-50 *
			35A		7MBP35VDA120-50 *
			50A	7MBP50VDA060-50 *	7MBP50VDA120-50 *
			75A	7MBP75VDA060-50 *	7MBP75VDA120-50 *
			100A	7MBP100VDA060-50 *	7MBP100VDA120-50 *
			150A	7MBP150VDA060-50 *	
			200A	7MBP200VDA060-50 *	
Without brake-chopper	44		100A		6MBP100VEA120-50 *
			150A		6MBP150VEA120-50 *
			200A	6MBP200VEA060-50 *	6MBP200VEA120-50 *
			300A	6MBP300VEA060-50 *	
			400A	6MBP400VEA060-50 *	
With brake-chopper			100A		7MBP100VEA120-50 *
			150A		7MBP150VEA120-50 *
			200A	7MBP200VEA060-50 *	7MBP200VEA120-50 *
			300A	7MBP300VEA060-50 *	
			400A	7MBP400VEA060-50 *	

Note: Suffix '-50' in production number indicates RoHS compliant.

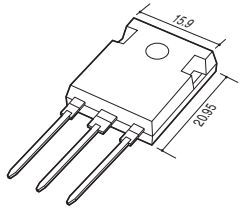
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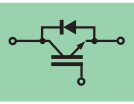
IGBT Discretes

mm

TO-247

45



Ic	600V			1200V		
	Trench-FS V series	Trench-FS High Speed V series		Trench-FS V series	Trench-FS High Speed V series	
						
15A				FGW15N120VD *	FGW15N120HD	FGW15N120H
25A				FGW25N120VD *		
30A	FGW30N60VD *				FGW30N120HD	FGW30N120H
35A		FGW35N60HD	FGW35N60H			
40A				FGW40N120VD *	FGW40N120HD	FGW40N120H
50A	FGW50N60VD *	FGW50N60HD	FGW50N60H			
75A	FGW75N60VD *	FGW75N60HD	FGW75N60H			

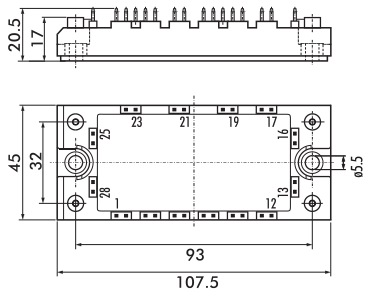
* Under development

e-Front runners

Package Outlines

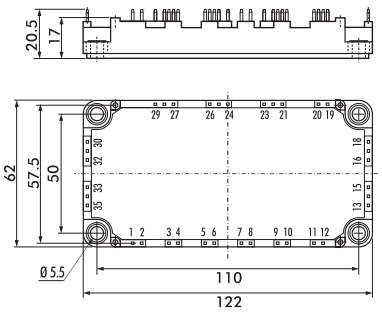
mm

1



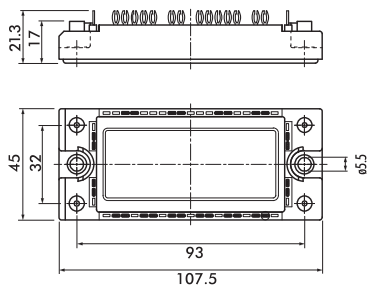
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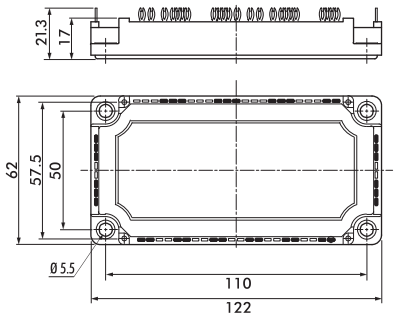
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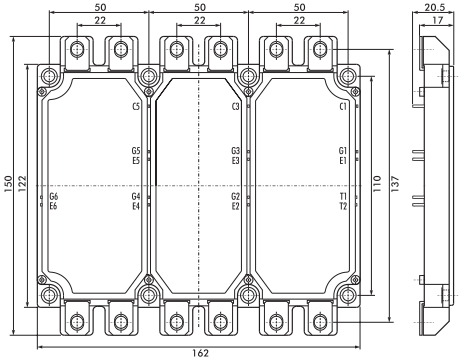
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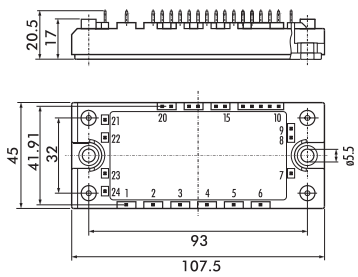
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5



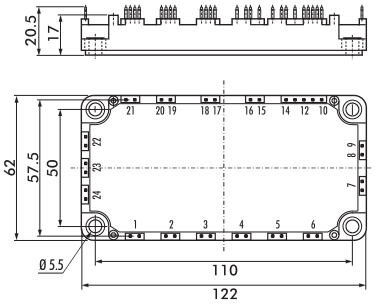
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6



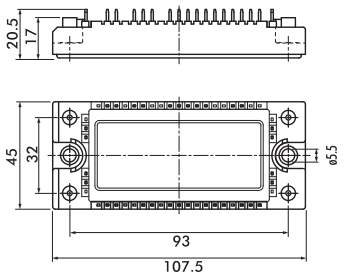
M711

7



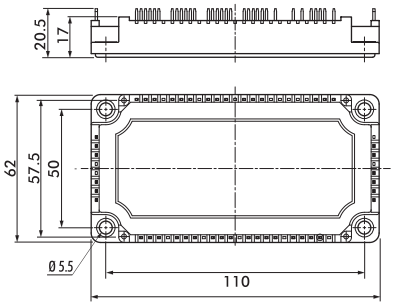
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8



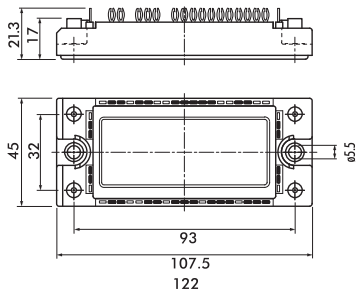
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9



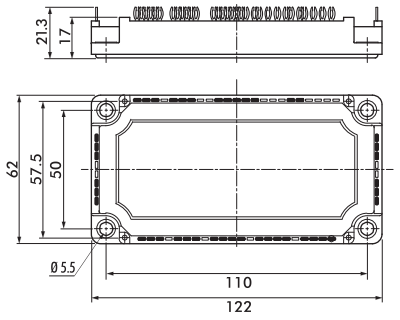
M720

10



M721

11



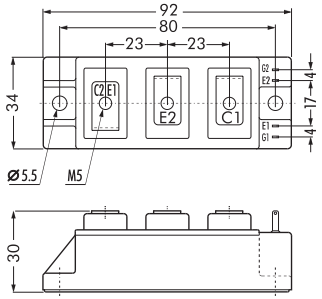
M722

e-Front runners

Package Outlines

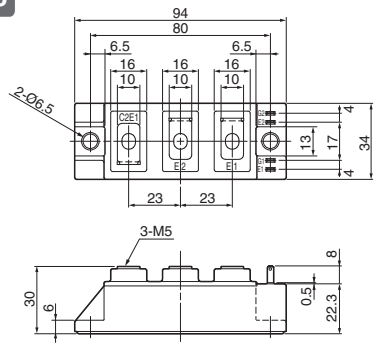
mm

12



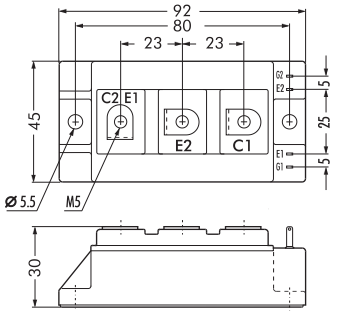
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13



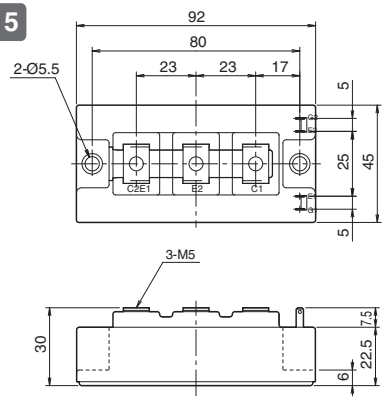
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14



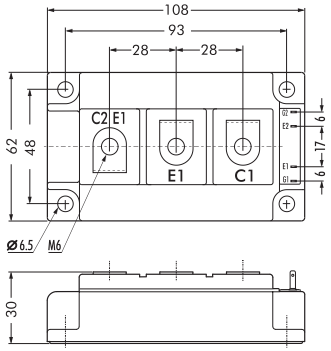
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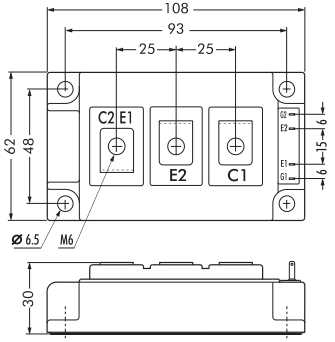
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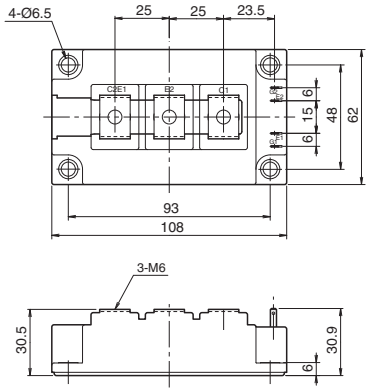
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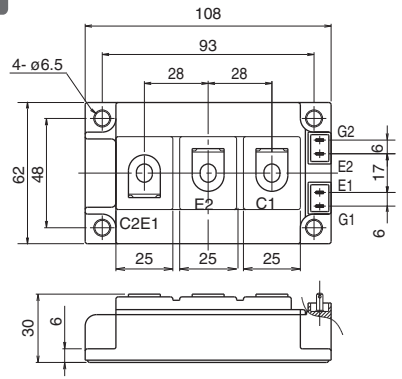
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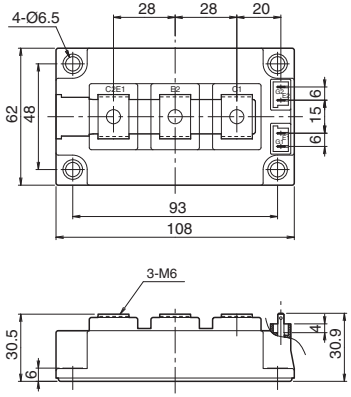
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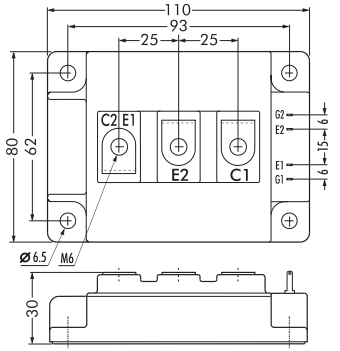
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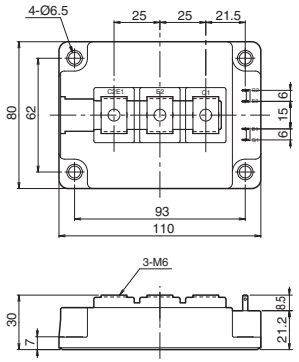
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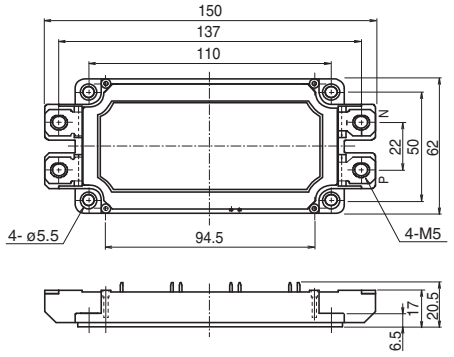
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e-Front runners

Package Outlines

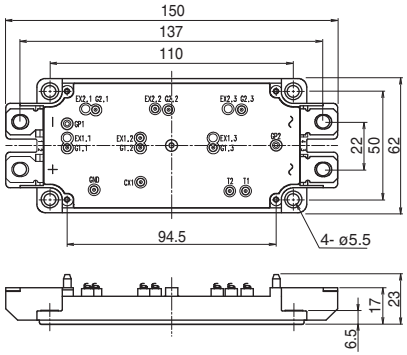
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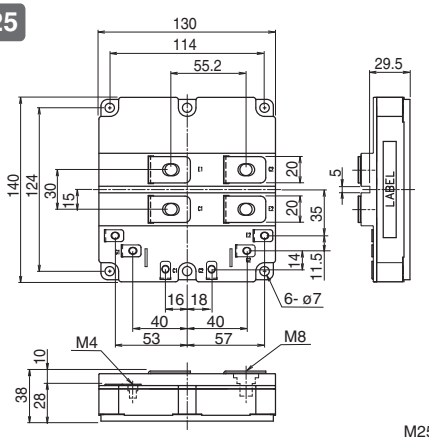
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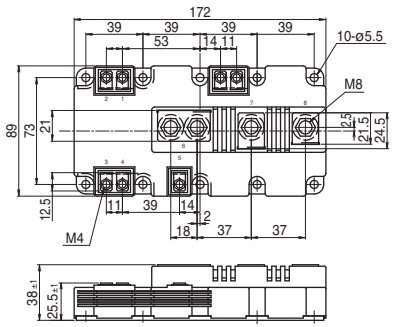
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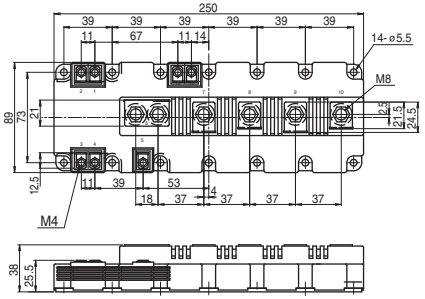
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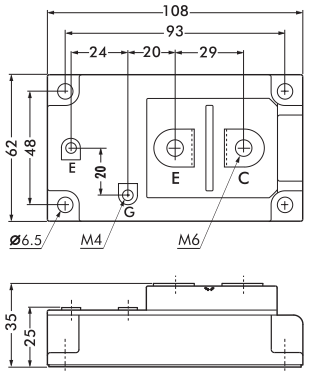
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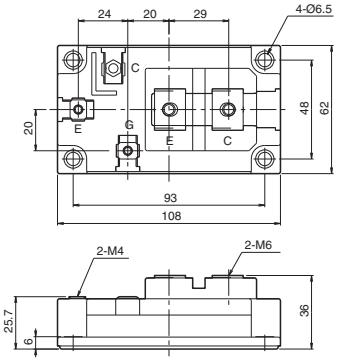
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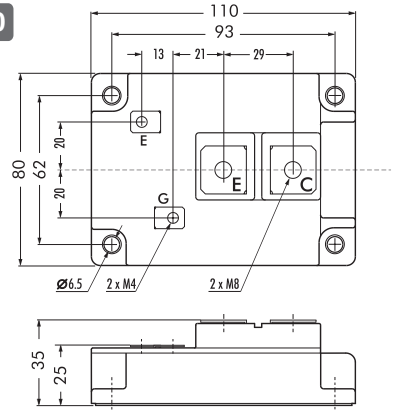
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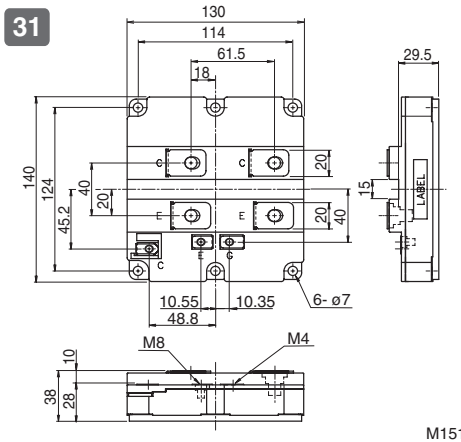
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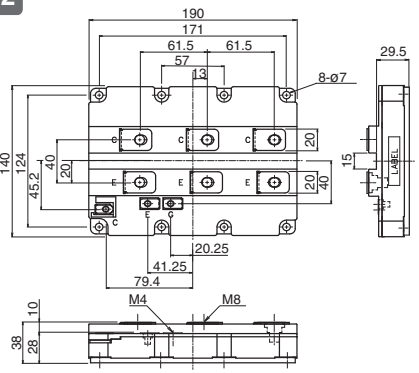
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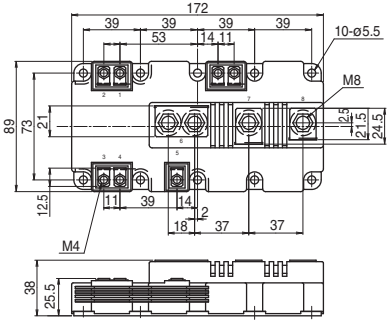
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M152

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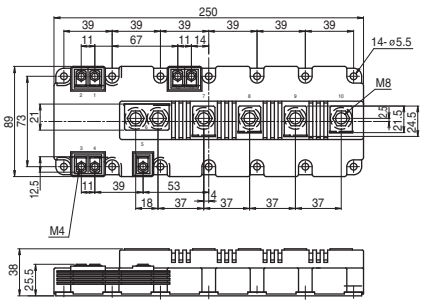
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e-Front runners

Package Outlines

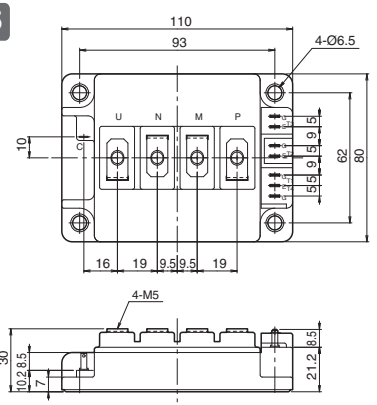
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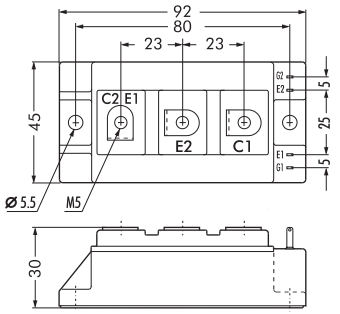
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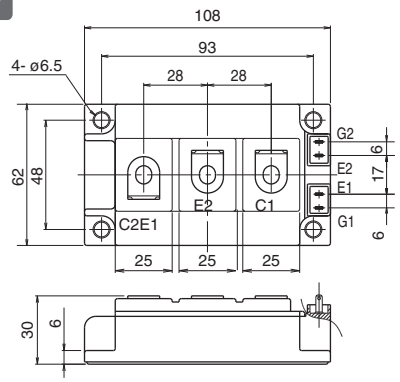
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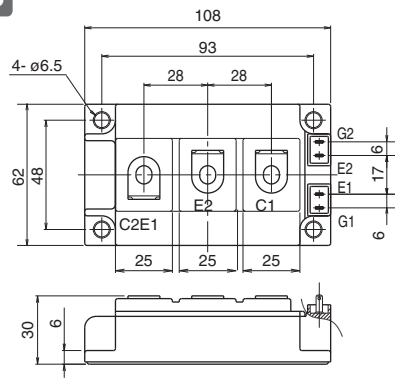
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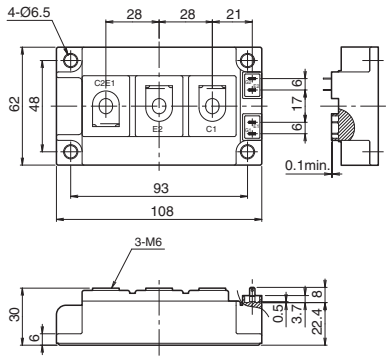
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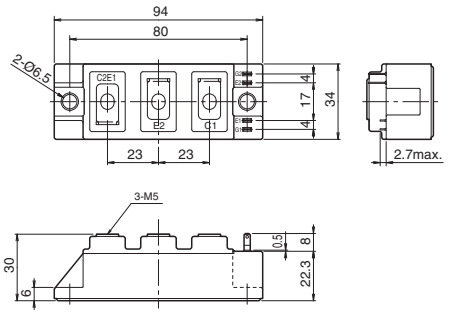
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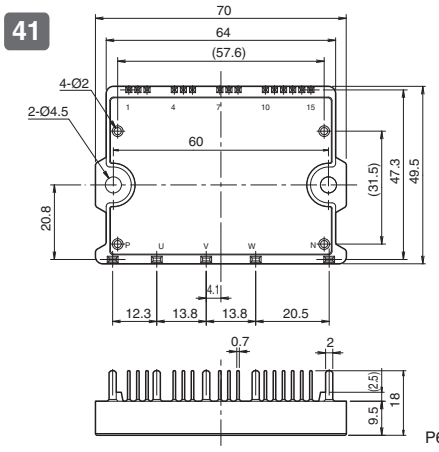
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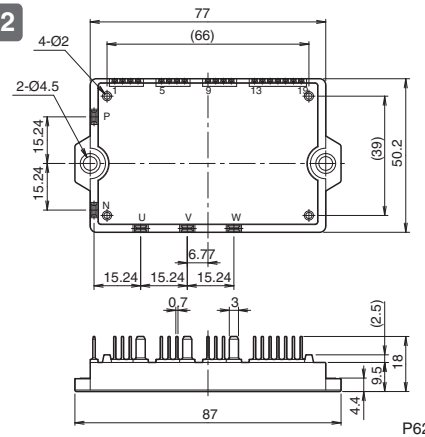
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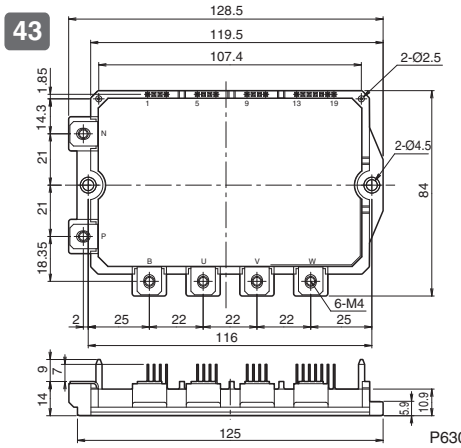
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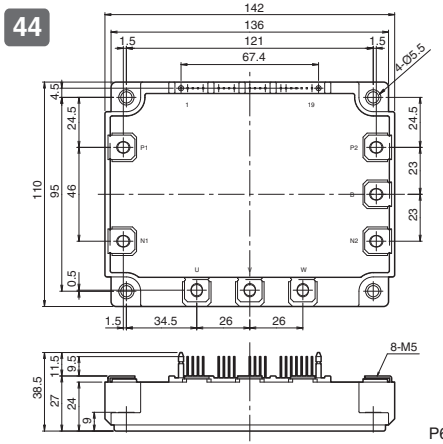
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P630

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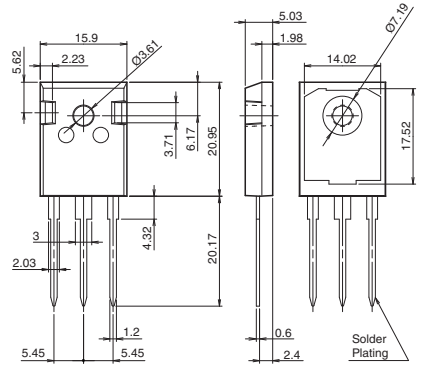
P631

e-Front runners

Package Outlines

mm

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