

Ratings and characteristics of Fuji IGBT (MBT) Module

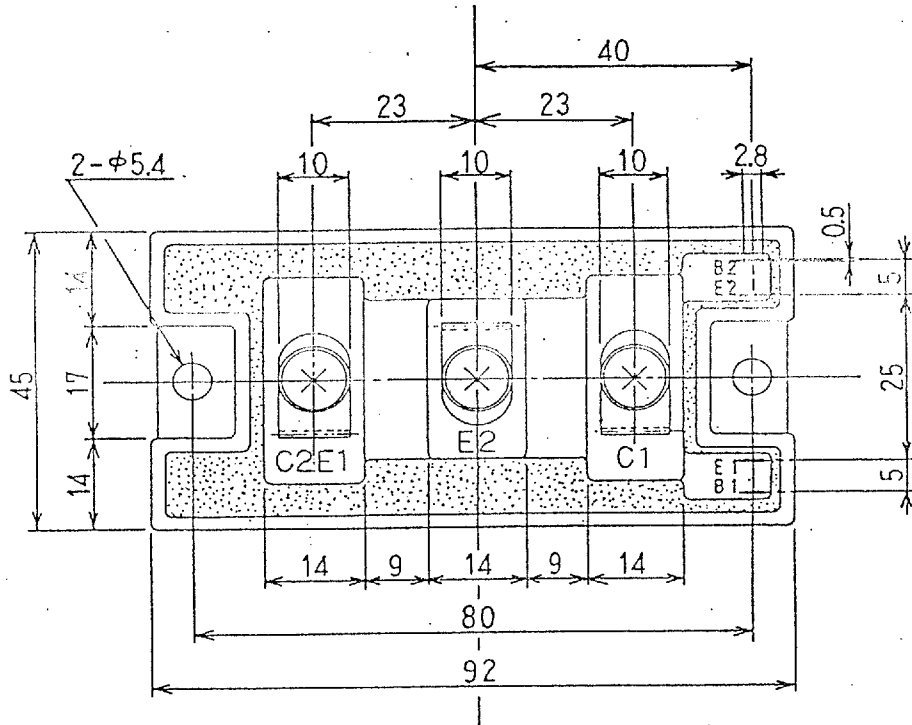
查询"2MBI200J060"供应商

2 M B I 2 0 0 J - 0 6 0 (TENTATIVE)

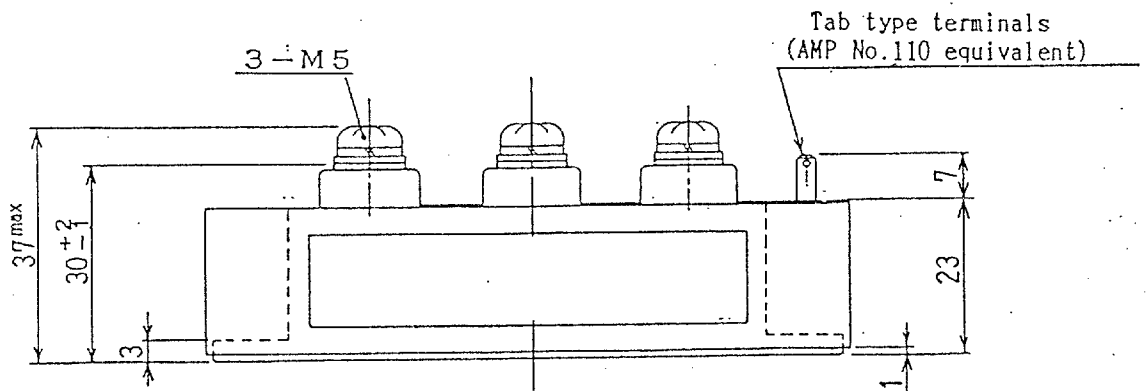
1. Outline Drawing

Unit : mm

* Isolation Voltage : AC 2500 V 1 minute



This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.



Revised page 2.4.7.10. Apr 6-'93 A.Yamaguchi

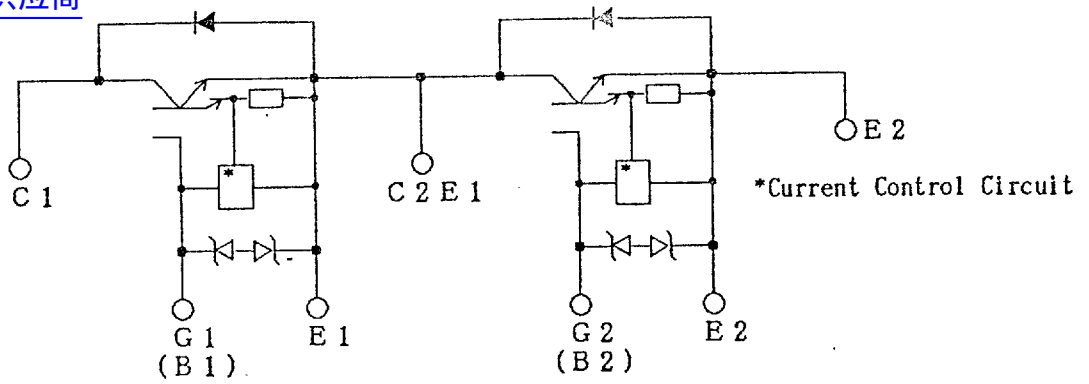
REVISIONS	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
	DRAWN	Jan -25-'93	A.Yamaguchi		
	CHECKED	Jan -25-'93	T.Hijiyasa		
				DWG.NO.	MT5F4907

MA4LE

2238792 0002448 422 COL

2. Equivalent Circuit

查询"2MB1200J060"供应商



3. Absolute Maximum Ratings (Tj=25 °C)

Items		Symbols	Ratings	Units
Collector-emitter voltage		V_{CES}	600	V
Gate-emitter voltage		V_{GES}	± 20	V
Collector current	Continuous	I_C	200	A
	1 ms	I_C pulse	400	
		$-I_C$	200	
	1 ms	$-I_C$ pulse	400	
Max. power dissipation		PC	600	W
Operating temperature		Tj	+150	°C
Storage temperature		Tstg	-40 ~ +125	°C
Isolation voltage		Vis	AC 2500 (1 min)	V
Screw Torque		Mounting *1	3.5	N·m
		Terminals *1	3.5	

Note : *1 Recommendable Value : 2.5 ~ 3.5 N·m (M5)

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
	DRAWN	- -			
	CHECKED	- -		2/11	a

MA4LE

2238792 0002449 369 COL

4. Static electrical characteristics (at Tj=25°C unless otherwise specified)

查询"2MB1200J060"供应商

Items	Symbols	Characteristics			Conditions	Units
		min.	typ.	max.		
Zero gate voltage collector current	I _{ces}			2.0	Tj= 25°C	m A
					V _{GE} = 0V V _{CE} = 600V	
Gate-emitter leakage current	I _{GES}			30	V _{CE} = 0V V _{GE} = ± 20V	μ A
Gate-emitter threshold voltage	V _{GE(th)}	3.5	5.0	6.5	V _{CE} = 20V I _c = 200mA	V
Collector-emitter saturation voltage	V _{CE(sat)}		1.7	2.5	V _{GE} = 15V I _c = 200A	V

5. Dynamic ratings (at Tj=25°C unless otherwise specified)

Items	Symbols	Characteristics			Conditions	Units
		min.	typ.	max.		
Input capacitance	C _{ies}		12800		V _{GE} = 0V	p F
Output capacitance	C _{oes}				V _{CE} = 10V	
Reverse transfer capacitance	C _{res}				f = 1MHz	
Turn-on time	t _{on}		0.6	1.2	V _{CC} =300V I _c =200A V _{GE} = ±15V R _G =9.1Ω	μ s
	t _r		0.2	0.6		
Turn-off time	t _{off}		0.8	1.5		
	t _f		0.15	0.35		

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS			
-----------	--	--	--

	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
DRAWN	- -				
CHECKED	- -			DWG. NO.	MT5F4907

MA4LE

2238792 0002450 080 COL

6. Characteristics of reverse diode (at $T_j=25^\circ\text{C}$ unless otherwise specified)

[查询"2MB1200J060"供应商](#)

Items	Symbols	Characteristics			Conditions	Units
		min.	typ.	max.		
Diode forward on-voltage	V F		2.3	3.0	I F = 200A V _{GE} = 0V	V
Reverse recovery time	t r r			300	I F = 200A -di/dt = 600A/ μ s	ns

7. Thermal resistance characteristics

Items	Symbols	Characteristics			Conditions	Units
		min.	typ.	max.		
Thermal resistance	R th(j-c)			0.208	IGBT	$^\circ\text{C}/\text{W}$
	R th(j-c)			0.400	Diode	
	※ R th(c-f)		0.025		the base to cooling fin	

※ This is the value which is defined mounting on the additional cooling fin with thermal compound.

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS			
-----------	--	--	--

	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
DRAWN	- -			DWG. NO.	MT5F4907
CHECKED	- -				

MA4LE

2238792 0002451 T17 COL