SPECIFICATION

Device Name : IGBT MODULE

Type Name : 6MBI100U4B-170

Spec. No. : MS5F 6304

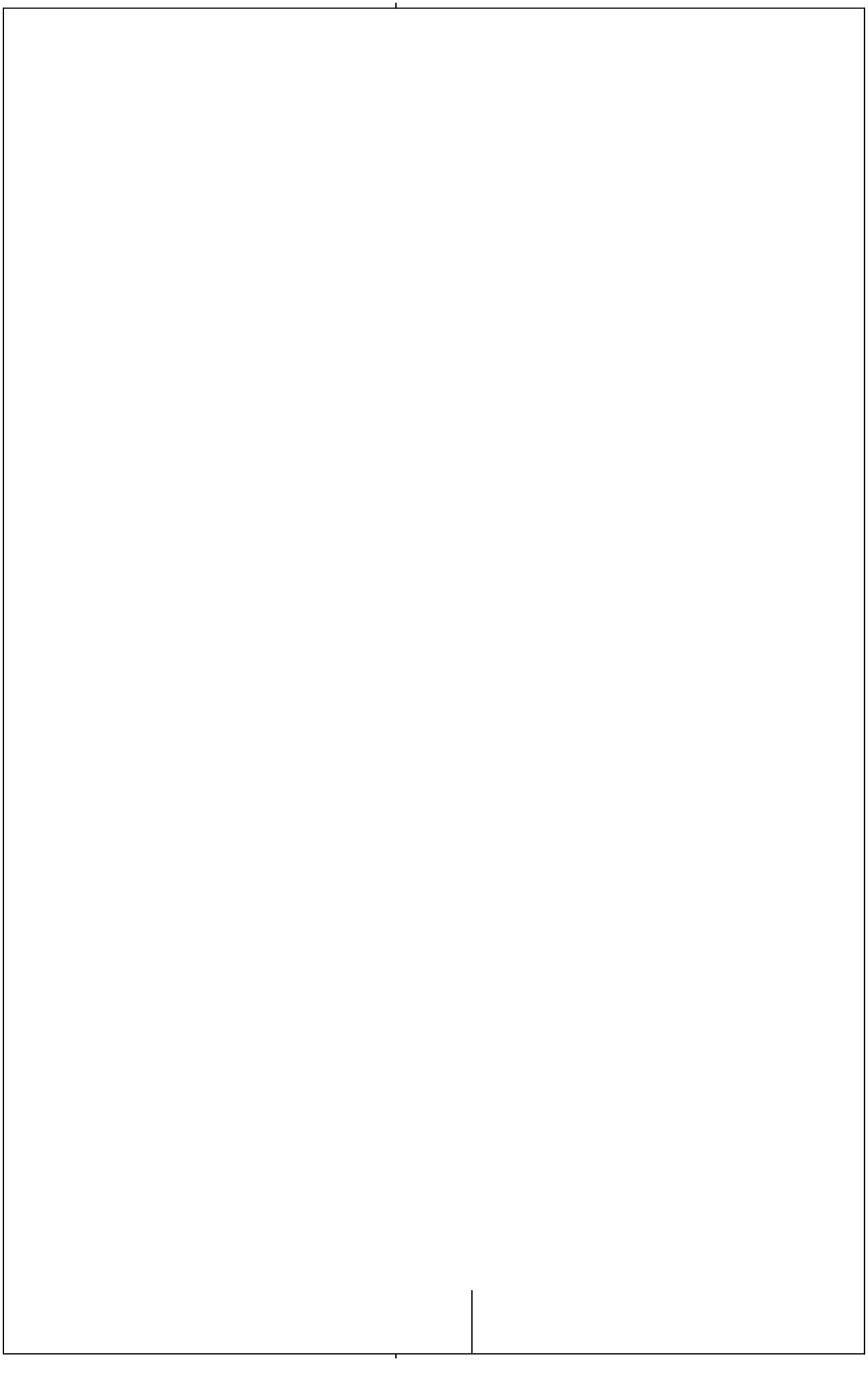
	DATE	NAME	APPROVED
DRAWN	July- 15 -'05	S.Miyashita	Y.Seki
CHECKED	July- 15 -'05	T.Miyasaka	
CHECKED	- -	K.Yamada	

Fuji Electric Device Technology Co.,Ltd.

DWG.NO. MS5F6304

Revised Records

Date	Classi-fication	Ind.	Content	Applied date	Drawn	Checked	Checked	Approved
	Enactment			Issued date				



3.Absolute Maximum Ratings (at Tc= 25°C unless other

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terminals
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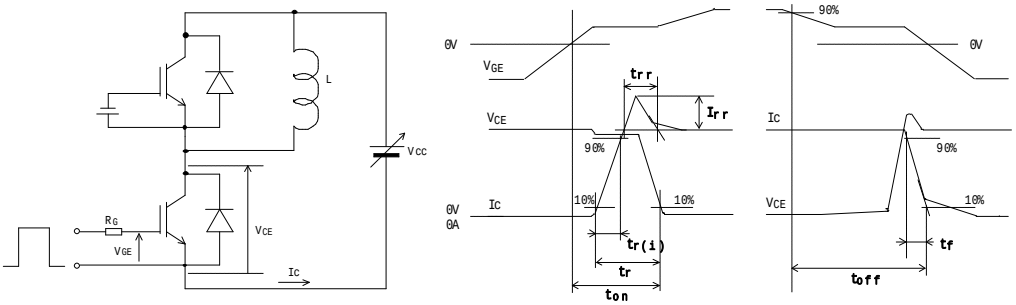
5. Thermal resistance characteristics

(*5) This is the value which is defined mounting on the additi



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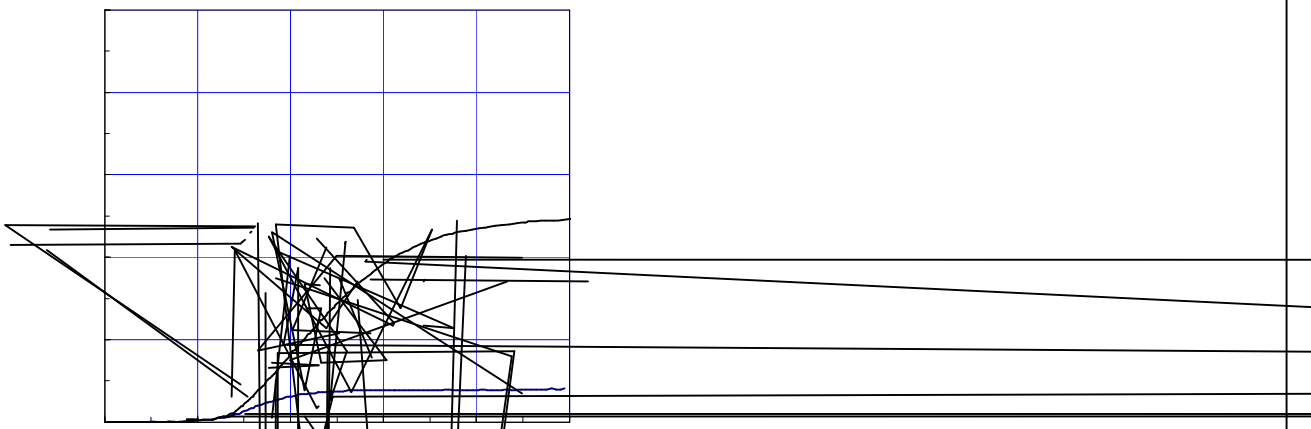
MS

Reliability Test Results

Test categories		Test items	Reference norms EIAJ ED-4701 (Aug.-2001 edition)	Number of test sample	Number of failure sample
Mechanical Tests	1	Terminal Strength (Pull test)	Test Method 401 Method	5	0
	2	Mounting Strength	Test Method 402 method	5	0
	3	Vibration	Test Method 403 Condition code B	5	0
	4	Shock	Test Method 404 Condition code B	5	0
	5	Solderabitlity	Test Method 303 Condition code A	5	0
	6	Resistance to Soldering Heat	Test Method 302 Condition code A	5	0
Environment Tests	1	High Temperature Storage	Test Method 201	5	0
	2	Low Temperature Storage	Test Method 202	5	0
	3	Temperature Humidity Storage	Test Method 103 Test code C	5	*
	4	Unsaturated Pressurized Vapor	Test Method 103 Test code E	5	0
	5	Temperature Cycle	Test Method 105	5	0
	6	Thermal Shock	Test Method 307 method Condition code A	5	0
Endurance Tests	1	High temperature Reverse Bias	Test Method 101	5	*
	2	High temperature Bias (for gate)	Test Method 101	5	0
	3	Temperature Humidity Bias	Test Method 102 Condition code C	5	*
	4	Intermitted Operating Life (Power cycling) (for IGBT)	Test Method 106	5	0

* under confirmation

Collector current vs. Collector-Emitter voltage (typ.)
Tj= 25°C / chip



Collector current vs. Collector-Emitter voltage (typ.)
Tj= 125°C/ chip

Collector current vs. Collector-Emitter voltage (typ.)
VGE=15V / chip

Collector-Emitter voltage vs. Gate-Emitter voltage (typ.)
Tj=25°C / chip

Capacitance vs. Collector-Emitter voltage (typ.)
VGE=0V, f= 1MHz, Tj= 25°C

Dynamic Gate charge (typ.)
Vcc=900V Ic=100A Tj= 25°C

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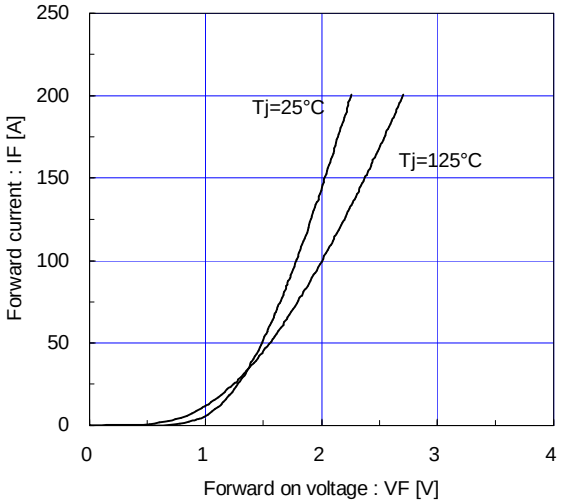
DWG.NO. MS5F6304

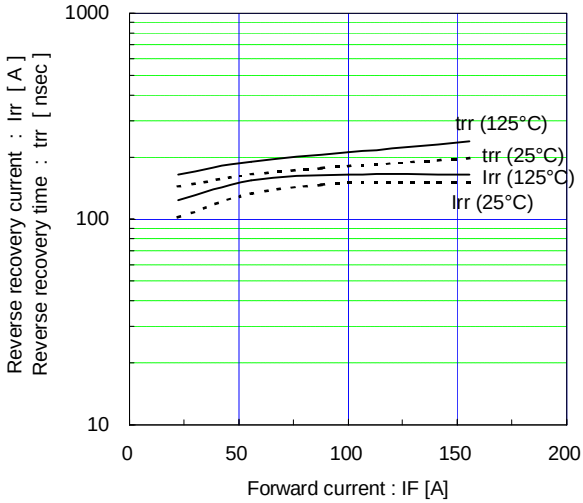
Forward current vs. Forward on voltage (typ.)

chip



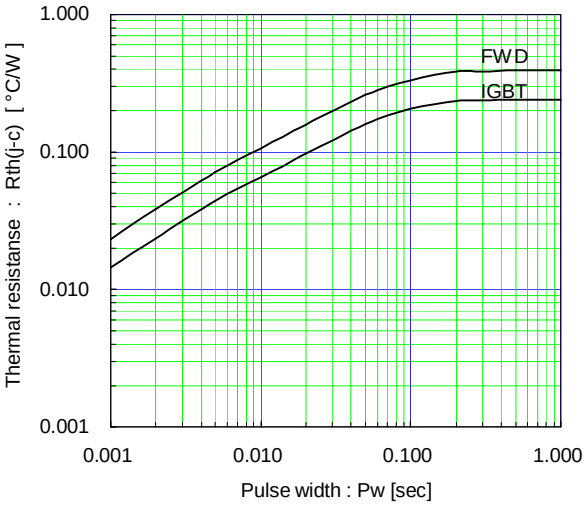
Reverse recovery characteristics (typ.)

Vcc=900V, VGE=±15V, Rg=4.7Ω

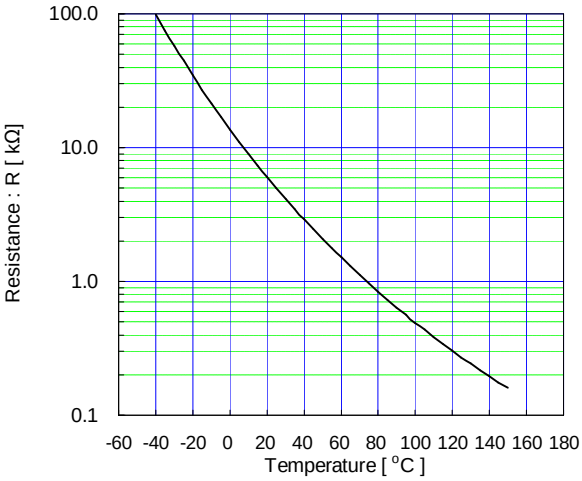


[Thermistor]

Transient thermal resistance (max.)



Temperature characteristic (typ.)



Warnings

- This product shall be used within its absolute maximum rating (voltage, current, and temperature). This product may be broken in case of using beyond the ratings. If Printed Circuit Board is not suitable, the main pin terminals may have higher temperature than Tstg. Also the pin terminals shall be used within Tstg.

- Connect adequate fuse or protector of circuit between three-phase line and this product to prevent the equipment from causing secondary destruction, such as fire, its spreading, or explosion.

- Use this product after realizing enough working on environment and considering of product's reliability life. This product may be broken before target life of the system in case of using beyond the product's reliability life.

- If the product had been used in the environment with acid, organic matter, and corrosive gas (hydrogen sulfide, sulfurous acid gas), the product's performance and appearance can not be ensured easily.

- Use this product within the power cycle curve (Technical Rep.No. : MT5F12959). Power cycle capability is classified to delta-Tj mode which is indicated as the 1st and delta-Tc mode. Delta-Tc mode is due to rise and down of case temperatu-

Warnings

- Never add the excessive mechanical stress to the main or control terminals when equipments. The module structure may be broken.
- In case of insufficient -VGE, erroneous turn-on of IGBT may occu