

SPECIFICATION

Device Name : IGBT MODULE

Type Name : 6MBI150U4B-170

Spec. No. : MS5F 6305

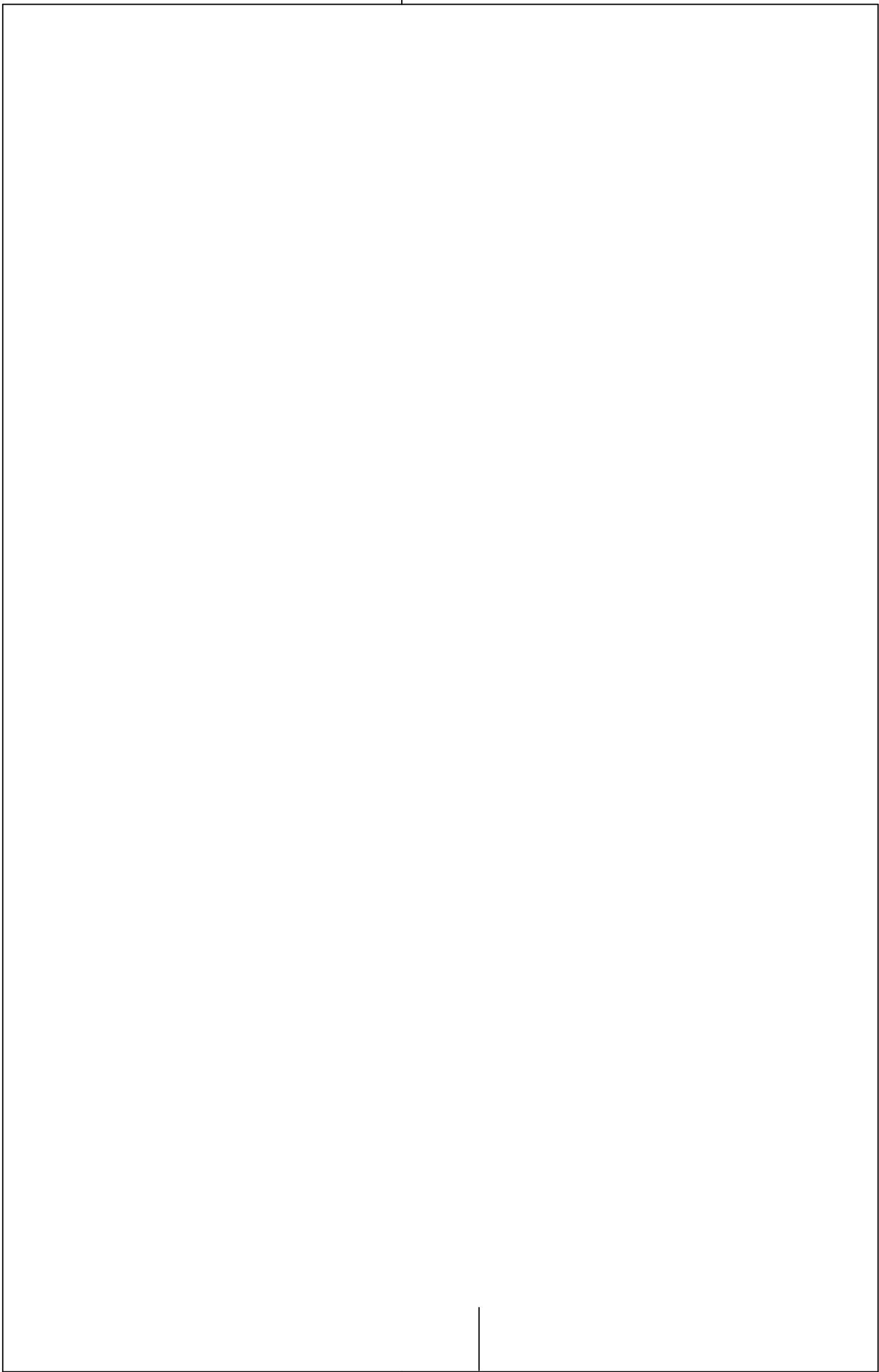
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	DATE	NAME	APPROVED	Fuji Electric Device Technology Co., Ltd.		
DRAWN	July - 15 - 05	S.Miyashita	Y.Seki	DWG.NO.	MS5F6305	1 / 13
CHECKED	July - 15 - 05	T.Miyasaka				
CHECKED	- -	K.Yamada				

Revised Records

Date	Classification	Ind.	Content	Applied date	Drawn	Checked	Checked	Approved
July.-15-'05	Enactment	—	—————	Issued date	—	T.Miyasaka	K.Yamada	Y.Seki

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

Tc=25°C

Tc=80°C

Tc=25°C

Tc=80°C

(*1) All terminals should be connected to each other when isolation test will be done.

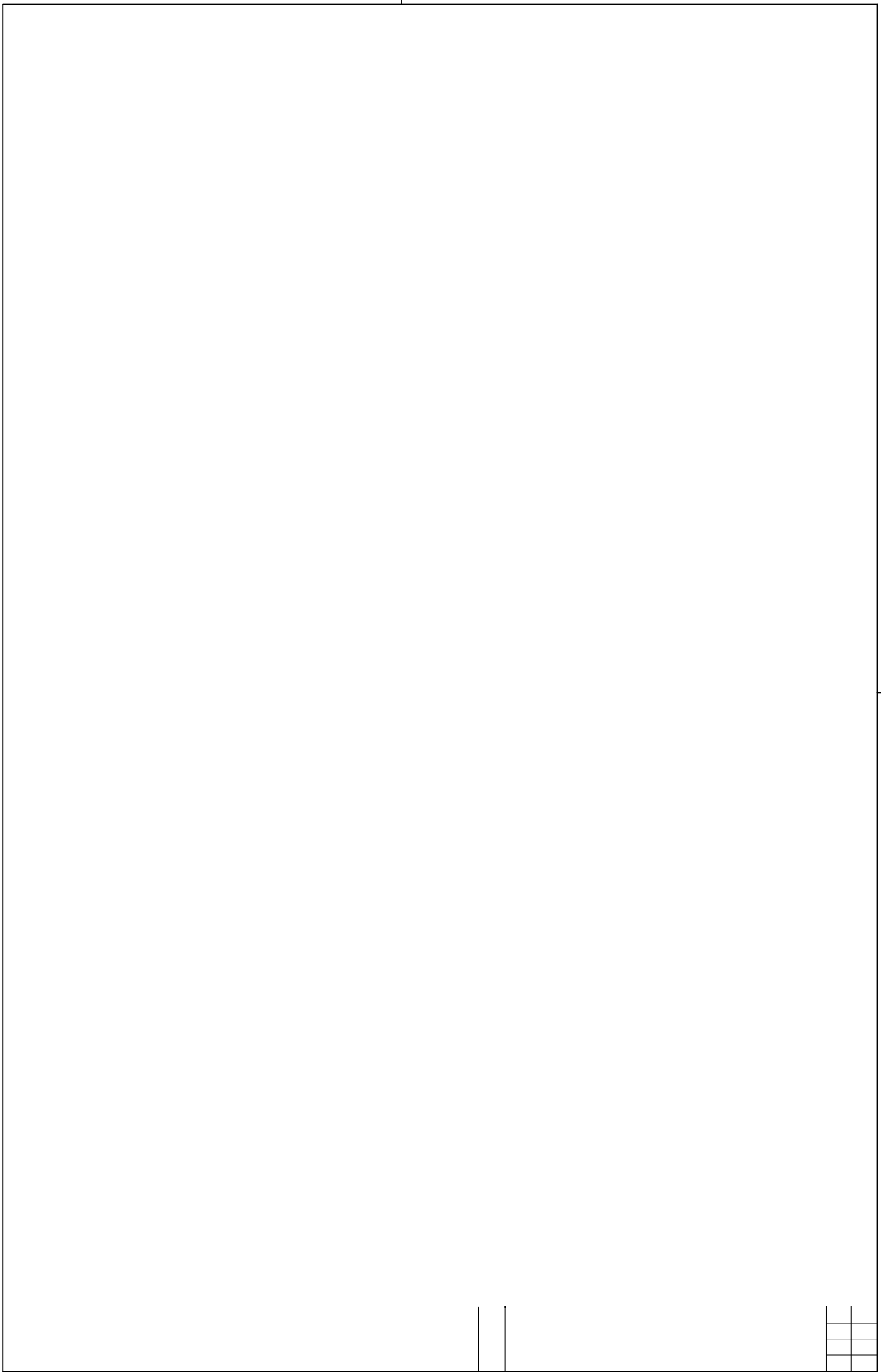
(*2) No mechanical stress should be applied to the terminals during the test.

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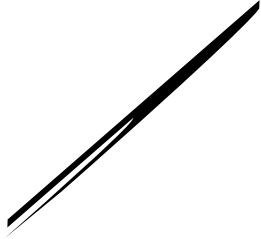
Reliability Test Results

Test categories	Test items	Reference norms EIAJ ED-4701 (Aug.-2001 edition)	Number of test sample	Number of failure sample
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	Solderability	Test Method 405	5	0
6	Resistance to Soldering Heat	Test Method 406	5	0

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VG ~~1.0V~~, $f = 1\text{MHz}$, $T_j =$



Switching time vs. Collector cu

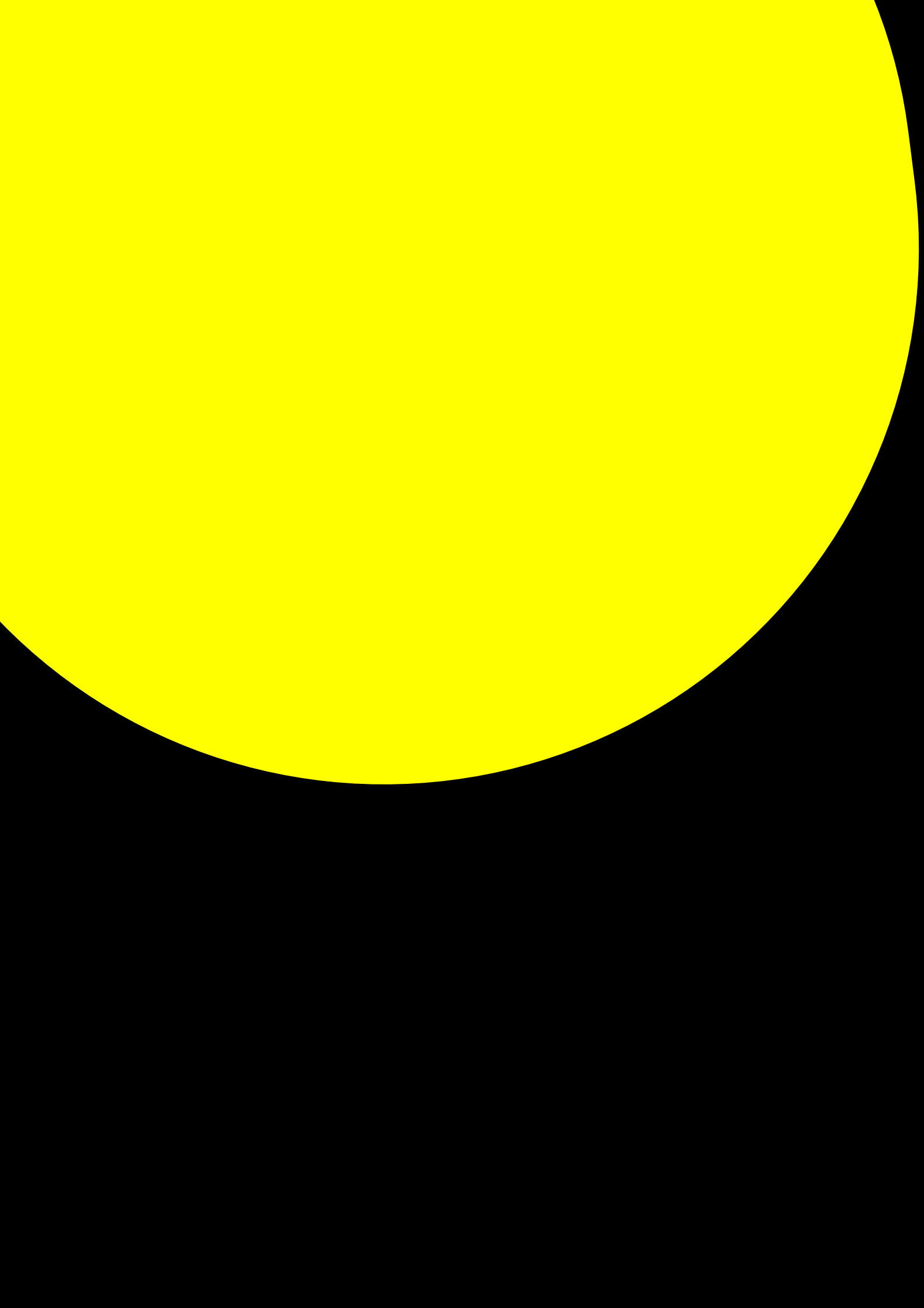
Switching time vs. Collector current (typ.)
Vcc=900V, VGE=±15V, Rg=3.3Ω, Tj=125°C

Switching time vs. Gate resistance (typ.)

Switching loss vs. Gate resistance (typ.)

Reverse bias safe operating area (max.)

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Warnings

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- Never add the excessive mechanical stress to the main or control terminals when the product is applied to equipments. The module structure may be broken.
- In case of insufficient -VGE, erroneous turn-on of IGBT may occur. -VGE shall be set enough value to prevent this malfunction. (Recommended value : -VGE = -15V)
- In case of higher turn-on dv/dt of IGBT, erroneous turn-on of opposite arm IGBT may occur. Use this product in the most suitable drive conditions, such as +VGE, -VGE, RG to prevent the malfunction.
- This product may be broken by avalanche in case of VCE beyond maximum rating VCES is applied between C-E terminals. Use this product within its absolute maximum voltage.

- Fuji Electric Device Technology is constantly making every endeavor to improve the product quality and reliability. However, semiconductor products may rarely happen to fail or malfunction. To prevent accidents causing injury or death, damage to property like by fire, and other social damage resulted from a failure or malfunction of the Fuji Electric Device Technology semiconductor products, take some measures to keep safety such as redundant design, spread-fire-preventive design, and malfunction-protective design.

- The application examples described in this specification only explain typical ones that used the Fuji Electric Device Technology products. This specification never ensure to enforce the industrial property and other rights, nor license the enforcement rights.

- The product described in this specification is not designed nor made for being applied to the equipment or systems used under life-threatening situations. When you consider applying the product of this specification to particular used, such as vehicle-mounted units, shipboard equipment, aerospace equipment, medical devices, atomic control systems and submarine relaying equipment or systems, please apply after confirmation of this product to be satisfied about system construction and required reliability.

If there is any unclear matter in this specification, please contact Fuji Electric Device Technology Co.,Ltd.

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