To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

Send any inquiries to http://www.renesas.com/inquiry.

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(Note 2) "Renesas Electronics product(s)" means any product developed or manufactured by or for Renesas Electronics.

To all our customers

Regarding the change of names mentioned in the document, such as Mitsubishi Electric and Mitsubishi XX, to Renesas Technology Corp.

The semiconductor operations of Hitachi and Mitsubishi Electric were transferred to Renesas Technology Corporation on April 1st 2003. These operations include microcomputer, logic, analog and discrete devices, and memory chips other than DRAMs (flash memory, SRAMs etc.) Accordingly, although Mitsubishi Electric, Mitsubishi Electric Corporation, Mitsubishi Semiconductors, and other Mitsubishi brand names are mentioned in the document, these names have in fact all been changed to Renesas Technology Corp. Thank you for your understanding. Except for our corporate trademark, logo and corporate statement, no changes whatsoever have been made to the contents of the document, and these changes do not constitute any alteration to the contents of the document itself.

Note : Mitsubishi Electric will continue the business operations of high frequency & optical devices and power devices.

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

MITSUBISHI INSULATED GATE BIPOLAR TRANSISTOR

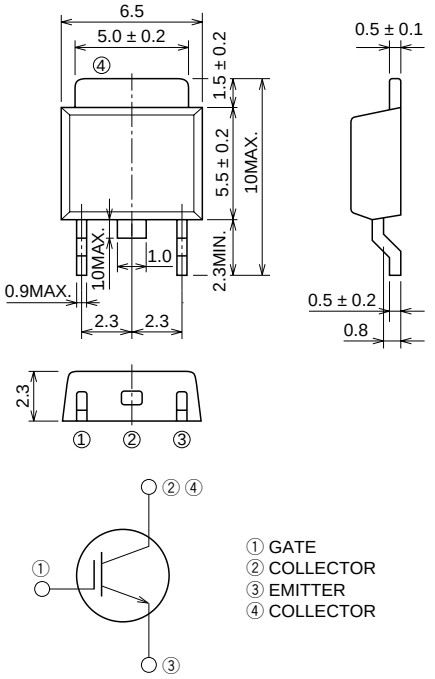
CT20ASJ-8

STROBE FLASHER USE

CT20ASJ-8

- V_{CES} 400V
- I_{CM} 130A
- Drive Voltage V_{GE}=4V
- Small Package MP-3

OUTLINE DRAWING Dimensions in mm



MP-3

APPLICATION

Strobe Flasher.

MAXIMUM RATINGS (T_c = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CES}	Collector-emitter voltage	V_{GE} = 0V	400	V
V_{GES}	Gate-emitter voltage		±6	V
V_{GEM}	Peak gate-emitter voltage		±8	V
I_{CM}	Collector current (Pulsed)	See figure 1	130	A
T_j	Junction temperature		–40 ~ +150	°C
T_{stg}	Storage temperature		–40 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_j = 25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
$V_{(BR)CES}$	Collector-emitter breakdown voltage	I_C = 1mA, V_{GE} = 0V	450	—	—	V
I_{CES}	Collector-emitter leakage current	V_{CE} = 400V, V_{GE} = 0V	—	—	10	μA
I_{GES}	Gate-emitter leakage current	V_{GE} = ±6V, V_{CE} = 0V	—	—	±0.1	μA
$V_{GE(th)}$	Gate-emitter threshold voltage	V_{CE} = 10V, I_C = 1mA	—	—	1.5	V

RENESAS
Renesas Technology Corp.

CT20ASJ-8

STROBE FLASHER USE

PERFORMANCE CURVES

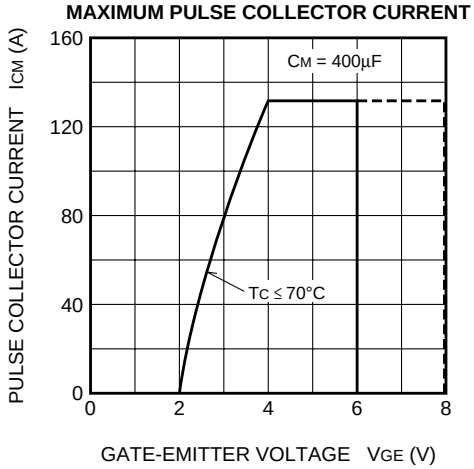
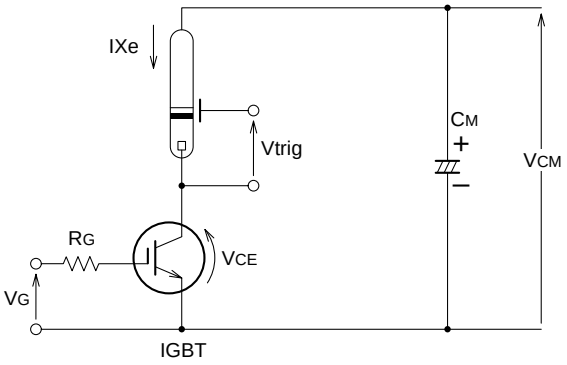
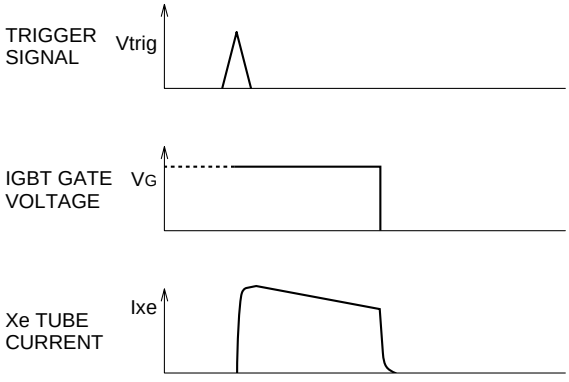


Figure 1

APPLICATION EXAMPLE





RECOMMEND CONDITION	MAXIMUM CONDITION
V_{CM} = 330V	350V
I_{CP} = 120A	130A
C_M = 300μF	400μF
V_{GE} = 5V	

Notice 1. Gate drive voltage during on-period must be applied to satisfy the rating of maximum pulse collector current. And reverse gate current during turn-off must be kept less than 0.1A. (In general, it is satisfied if $R_G \geq 30\Omega$)

Notice 2. IGBT has MOS structure and its gate is insulated by thin silicon oxide. So please handle carefully not to suffer from electrostatic charge.

Notice 3. The operation life should be endured 5,000 shots under the charge current ($I_{xe} \leq 130$A : full luminescence condition) of main condenser (C_M=400μF). Repetition period under full luminescence condition is over 3 seconds.

Notice 4. Total operation hours must be applied within 5,000 hours.