

# CT40KM-8H

## Nch IGBT for Strobe Flasher

REJ03G0286-0200 Rev.2.00 Jul. 07, 2005

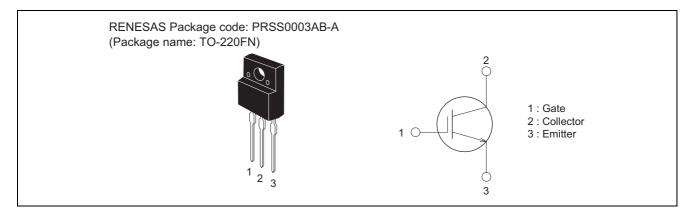
### **Features**

• V<sub>CES</sub>: 400 V

• TO-220FN package

• High Speed Switching

### **Outline**



## **Applications**

Strobe flashers

## **Maximum Ratings**

 $(Tc = 25^{\circ}C)$ 

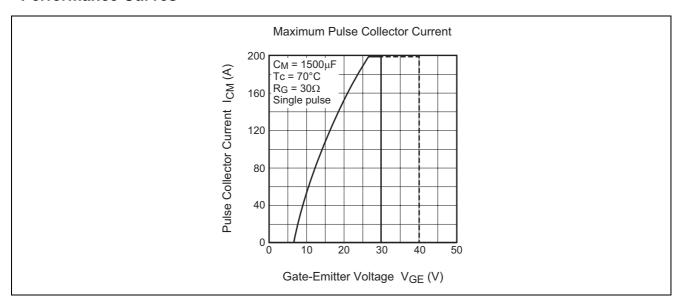
Parameter	Symbol	Ratings	Unit	Conditions
Collector-emitter voltage	$V_{CES}$	400	V	$V_{GE} = 0 V$
Gate-emitter voltage	$V_{GES}$	30	V	V <sub>CE</sub> = 0 V, Refer to item 4 under Notes
				on the Actual Specifications
Peak gate-emitter voltage	$V_{GEM}$	40	V	$V_{CE} = 0 \text{ V}, \text{ tw} = 0.5 \text{ s}$
Collector current (Pulse)	I <sub>CM</sub>	200	Α	$C_{M} = 1500  \mu F$
				(see performance curve)
Maximum power dissipation	Pc	45	W	
Junction temperature	Tj	- 40 to +150	°C	
Storage temperature	Tstg	- 40 to +150	°C	
Mass	_	2.0	g	Typical value

## **Electrical Characteristics**

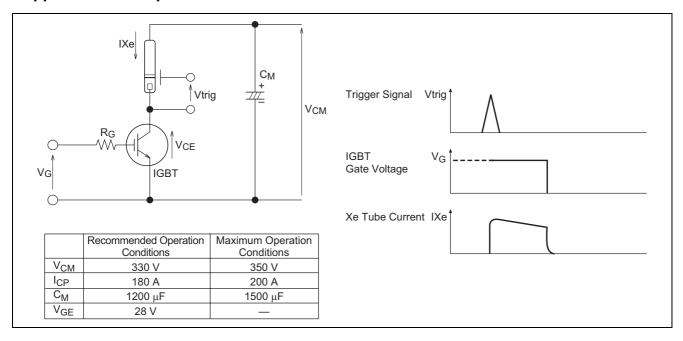
 $(Tj = 25^{\circ}C)$ 

Parameter	Symbol	Min.	Тур.	Max.	Unit	Test conditions
Collector-emitter breakdown voltage	$V_{(BR)CES}$	450	_	_	V	$I_C = 1 \text{ mA}, V_{GE} = 0 \text{ V}$
Collector-emitter leakage current	I <sub>CES</sub>	_	_	10	μΑ	$V_{CE} = 400 \text{ V}, V_{GE} = 0 \text{ V}$
Gate-emitter leakage current	I <sub>GES</sub>	_	_	±0.1	μΑ	$V_{GE} = \pm 40 \text{ V}, V_{CE} = 0 \text{ V}$
Gate-emitter threshold voltage	$V_{\text{GE(th)}}$	_		7.0	V	$V_{CE} = 10 \text{ V}, I_{C} = 1 \text{ mA}$

## **Performance Curves**



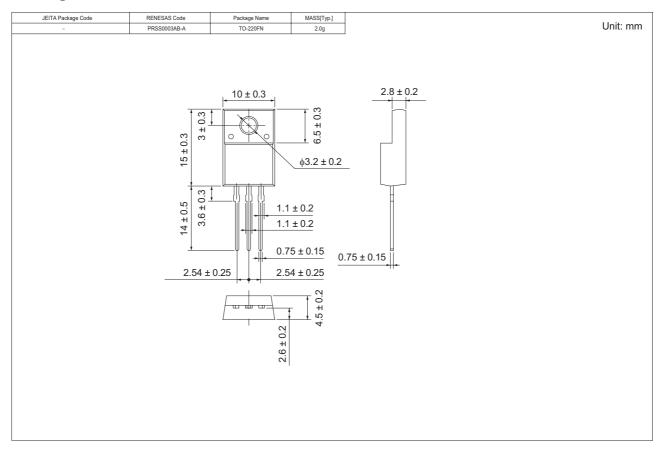
## **Application Example**



### **Precautions on Usage**

- 1. Gate drive voltage during on-period must be applied to satisfy the rating of maximum pulse collector current. And peak reverse gate current during turn-off must become less than 1 A. (In general, when  $R_{G(off)} = 30 \Omega$ , it is satisfied.)
- 2. IGBT has MOS structure and its gate is insulated by thin silicon oxide. So please handle carefully to protect the device from electrostatic charge.
- 3. The operation life should be endured 5,000 shots under the charge current ( $I_{Xe} \le 200~A$ : full luminescence condition) of main capacitor ( $C_M = 1500~\mu F$ ) which can endure repeated discharge of 5,000 times. Repetition period under full luminescence condition is over 3 seconds.
- 4. Total operation hours applied to the gate-emitter voltage must be within 5,000 hours.

## **Package Dimensions**



## **Order Code**

Lead form	Standard packing	Quantity	Standard order code	Standard order code example
Straight type	Plastic Magazine (Tube)	50	Type name	CT40KM-8H

Note: Please confirm the specification about the shipping in detail.

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