

mitsubishi insulated gate bipolar transistor

CT20ASJ-8

STROBE FLASHER USE

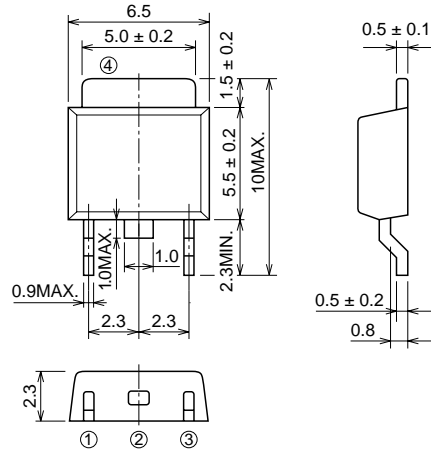
CT20ASJ-8



- VCES 400V
- ICM 130A
- Drive Voltage VGE=4V
- Small Package MP-3

OUTLINE DRAWING

Dimensions in mm



- ① GATE
- ② COLLECTOR
- ③ EMITTER
- ④ COLLECTOR

MP-3

APPLICATION

Strobe Flasher.

MAXIMUM RATINGS (Tc = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
VCES	Collector-emitter voltage	VGE = 0V	400	V
VGES	Gate-emitter voltage		±6	V
VGEM	Peak gate-emitter voltage		±8	V
ICM	Collector current (Pulsed)	See figure 1	130	A
Tj	Junction temperature		-40 ~ +150	°C
Tstg	Storage temperature		-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Tj = 25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
V(BR)CES	Collector-emitter breakdown voltage	IC = 1mA, VGE = 0V	450	—	—	V
ICES	Collector-emitter leakage current	VCE = 400V, VGE = 0V	—	—	10	μA
IGES	Gate-emitter leakage current	VGE = ±6V, VCE = 0V	—	—	±0.1	μA
VGE(th)	Gate-emitter threshold voltage	VCE = 10V, IC = 1mA	—	—	1.5	V

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PERFORMANCE CURVES

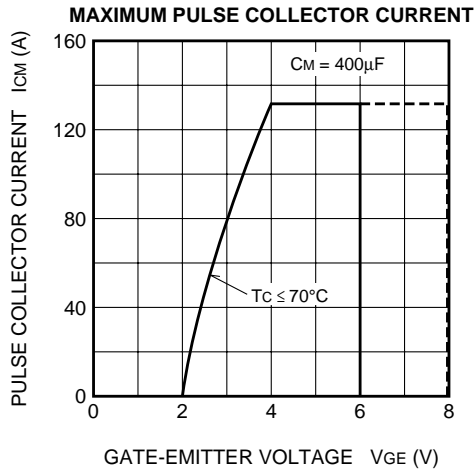
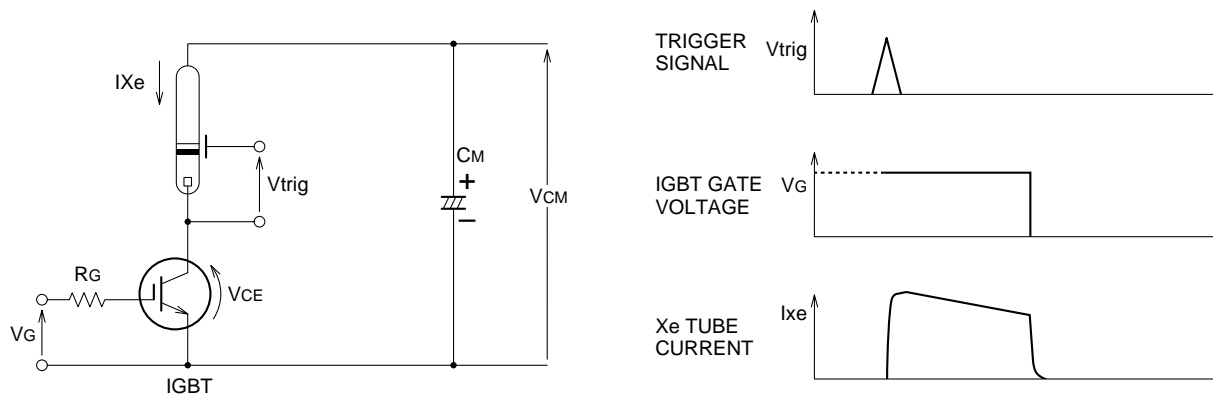


Figure 1

APPLICATION EXAMPLE



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

- 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 ($I_{xe} \leq 130A$: full luminescence condition) of main condenser ($C_M=400\mu F$). Repetition period under full luminescence condition is over 3 seconds.
- Notice 4. Total operation hours must be applied within 5,000 hours.