

MITSUBISHI INSULATED GATE BIPOLAR TRANSISTOR

CT20ASJ-8

STROBE FLASHER USE

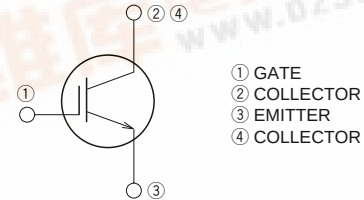
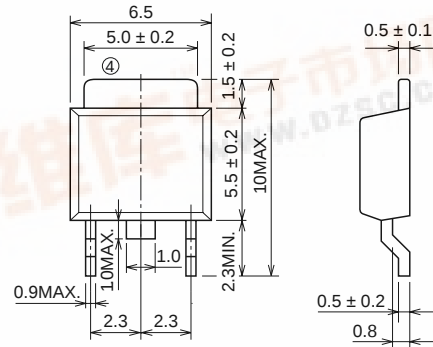
CT20ASJ-8



- 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

PERFORMANCE CURVES

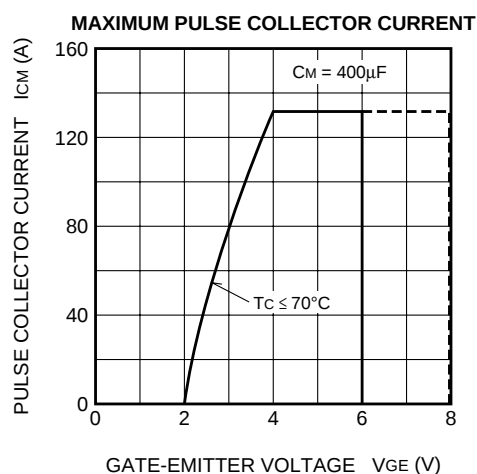
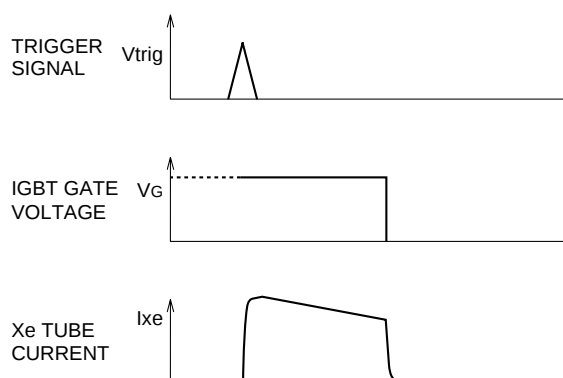
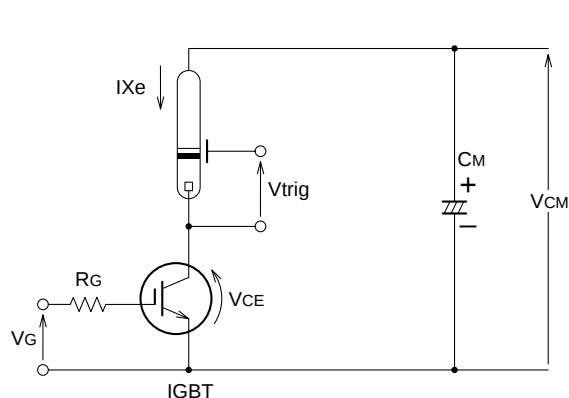


Figure 1

APPLICATION EXAMPLE



RECOMMEND CONDITION MAXIMUM CONDITION

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

- 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.