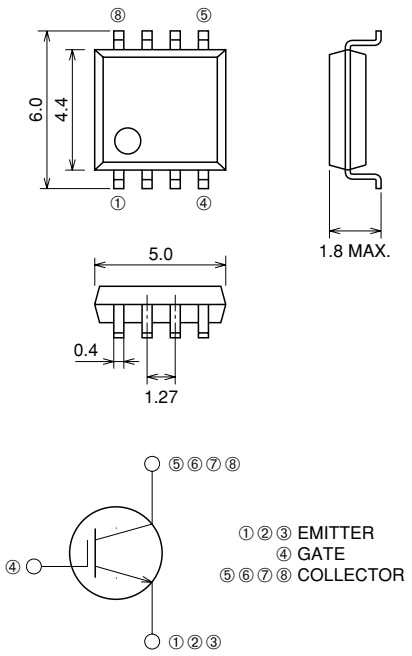
CY20AAJ-8

Nch IGBT for STROBE FLASHER

CY20AAJ-8

- V_{CES} 400V
- I_{CM} 130A
- Drive voltage 4V

OUTLINE DRAWING Dimensions in mm



SOP-8

APPLICATION

Strobe flasher for Camera

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	V_{CE} = 0V	±6	V
V_{GEM}	Peak gate-emitter voltage	V_{CE} = 0V, tw = 10s	±8	V
I_{CM}	Collector current (Pulsed)	C_M = 400μF see figure1	130	A
T_j	Junction temperature		–40 ~ +150	°C
T_{stg}	Storage temperature		–40 ~ +150	°C

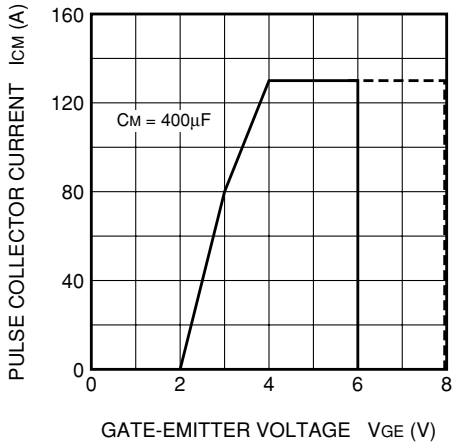
CY20AAJ-8

Nch IGBT for STROBE FLASHER

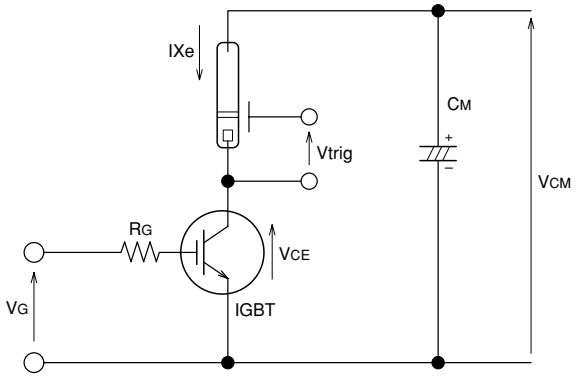
ELECTRICAL CHARACTERISTICS (T_j = 25°C)

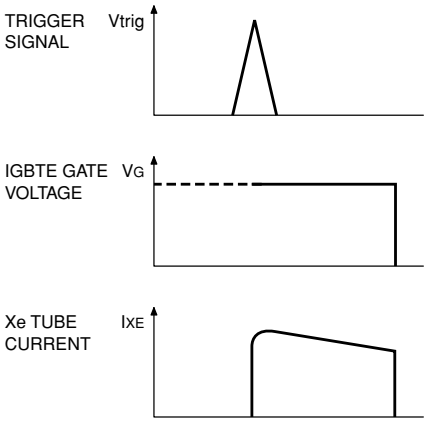
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
$V_{(BR)\ CES}$	Collector-emitter breakdown voltage	I_C = 1mA, V_{GE} = 0V	450	—	—	V
I_{CES}	Collector-emitter leakage current	V_{CE} = 400V, V_{GE} = 0V	—	—	10	μA
I_{GES}	Gate-emitter leakage current	V_{GE} = ±6V, V_{CE} = 0V	—	—	±0.1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

Figure1. MAXIMUM PULSE COLLECTOR CURRENT



APPLICATION EXAMPLE





Recommended operation conditions
- V_{CM} = 330V
- I_{CP} = 120A
- C_M = 300μF
- V_{GE} = 5V

Maximum operation conditions
- V_{CM} = 350V
- I_{CP} = 130A
- C_M = 400μF

Notice 1. Gate drive voltage during on-state must be applied to satisfy the rating of maximum pulse collector current.
And peak reverse gate current during turn-off must become less than 0.1A. (In general, when R_G (off) = 30Ω, it is satisfied.)
Notice 2. IGBT has MOS structure and its gate is insulated by thin silicon oxide.
So please handle carefully not to give static electricity.
Notice 3. The operation life should be endured 5,000 shots under the charge current
(I_{xe} ≤ 130A : full luminescence condition) of main condenser (C_M = 400μF).
Repetitive period under the full luminescence conditions is over 3 seconds.
Notice 4. Total gate operation time must be applied within 5,000 hours.

MITSUBISHI ELECTRIC