

MITSUBISHI INSULATED GATE BIPOLAR TRANSISTOR

CT40TMH-8

STROBE FLASHER USE

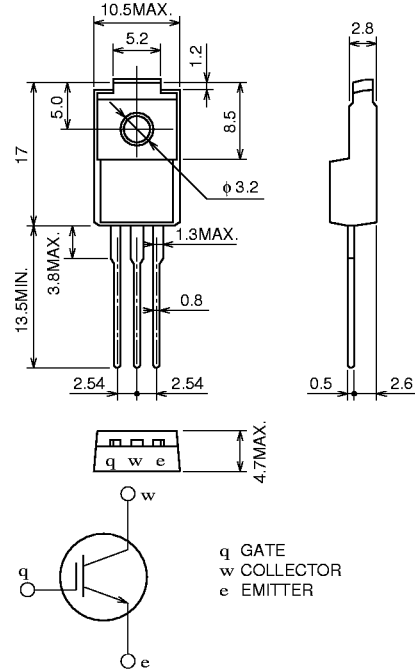
CT40TMH-8



VCES	400V
ICM	200A

OUTLINE DRAWING

Dimensions in mm



TO-220F

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	VCE = 0V, See notice 4	±30	V
VGEM	Peak gate-emitter voltage	VCE = 0V, tw = 0.5s	±40	V
ICM	Collector current (Pulsed)	See figure 1	200	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 = ±40V, VCE = 0V	—	—	±0.1	μA
VGE(th)	Gate-emitter threshold voltage	VCE = 10V, IC = 1mA	—	—	7.0	V

Feb.1999

PERFORMANCE CURVES

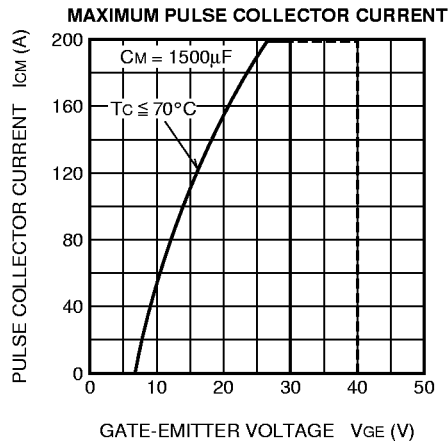
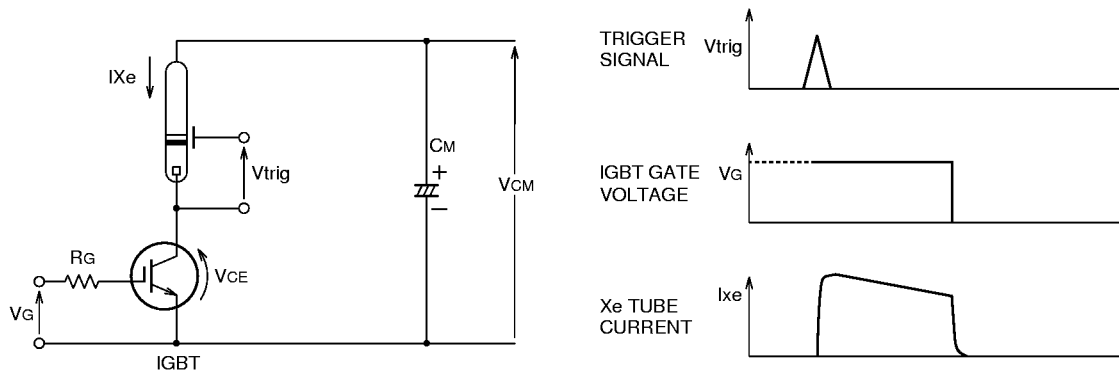


Figure 1

APPLICATION EXAMPLE



RECOMMEND CONDITION MAXIMUM CONDITION

$V_{CM} = 330V$	350V
$I_P = 180A$	200A
$CM = 1200\mu F$	1500 μF
$V_{GE} = 28V$	

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 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 ($I_{xe} \leq 200A$: full luminescence condition) of main condenser ($CM=1500\mu F$).
Repetition period under full luminescence condition is over 3 seconds.

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