

TOSHIBA HIGH-SPEED THYRISTOR SILICON PLANAR TYPE

SH8G41

FOR AUTOMATIC-STROBE FLASHER APPLICATIONS
--- DISCHARGER (Chopper)

- Type No. SH8G41 is Designed for a Small Package Device Having Shorted Turn-Off Time and Low Turn-On Loss at High Current.
- Repetitive Peak Off-State Voltage and Peak Reverse Voltage : $V_{DRM} = V_{RRM} = 400V$
- Repetitive Peak Surge On-State Current : $I_{TRM} = 350A$
- Critical Rate of Rise of On-State Current : $di/dt = 100A/\mu s$
- Plastic Mold Package

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State and Reverse Voltage	V_{DRM} V_{RRM}	400	V
Non-Repetitive Peak Reverse Voltage (Note 1)	V_{RSM}	450	V
Repetitive Peak Surge On-State Current (Note 2)	I_{TRM}	350	A
Critical Rate of Rise of On-State Current (Note 3)	di/dt	100	A / μs
Peak Gate Power Dissipation	P_{GM}	5	W
Average Gate Power Dissipation	$P_G (AV)$	0.5	W
Peak Forward Gate Current	I_{GM}	2	A
Junction Temperature	T_j	-40~125	°C
Storage Temperature Range	T_{stg}	-40~125	°C

Note 1: Non - Rep. < 5ms, $T_j = 0\sim 125^\circ C$

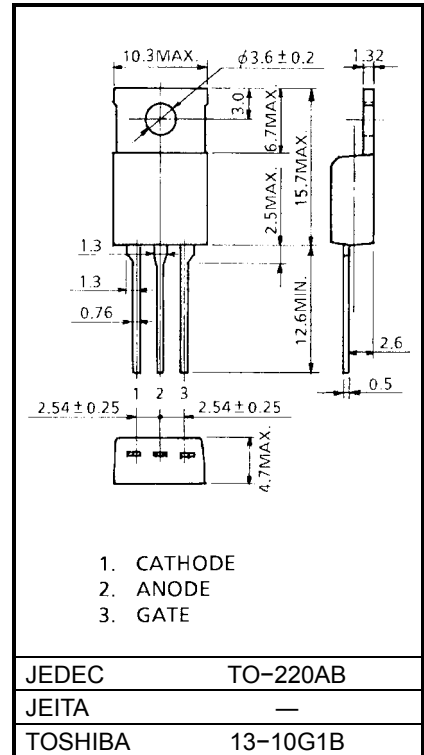
Note 2: $C_M = 1000\mu F$

Note 3: $i_G = 100mA$

$t_{gw} = 10\mu s$

$t_{gr} \leq 250ns$

Unit: mm

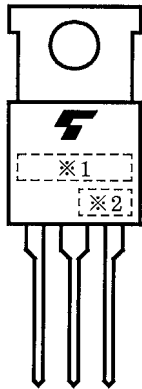


Weight: 2.0g

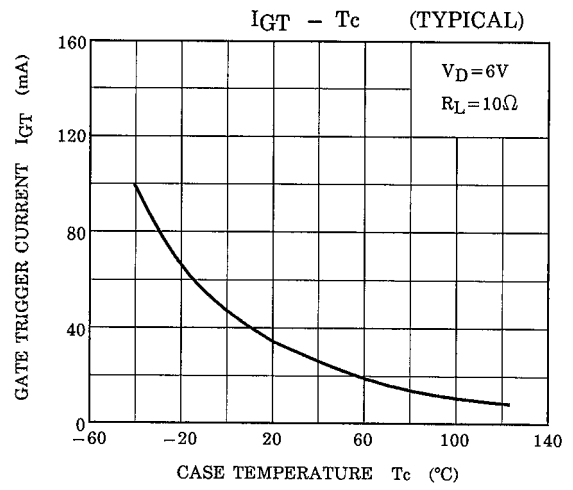
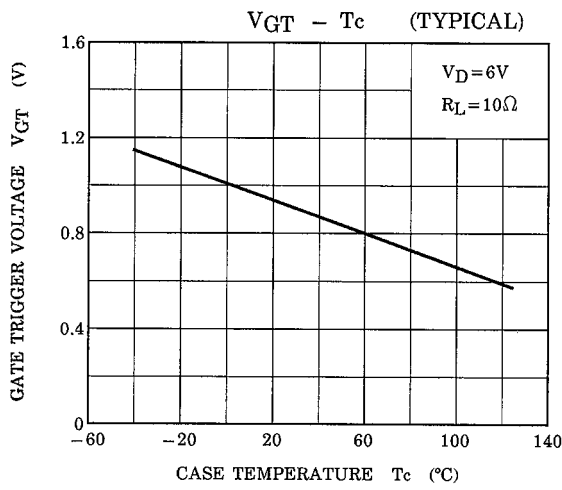
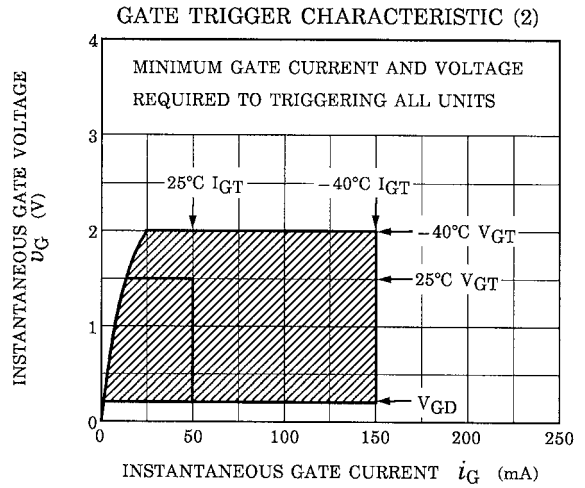
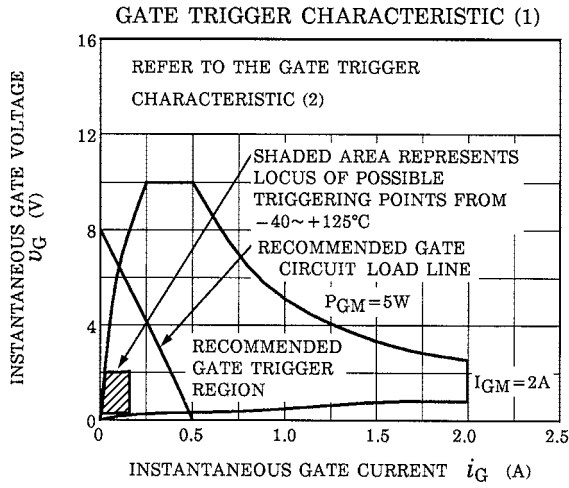
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Repetitive Peak Off-State and Reverse Current	I_{DRM} I_{RRM}	$V_{DRM} = V_{RRM} = 400V$	—	250	μA
Peak On-State Voltage	V_{TM}	$I_{TM} = 25A$	—	2.3	V
Gate Trigger Voltage	V_{GT}	$V_D = 6V, R_L = 10\Omega$	—	1.5	V
Gate Trigger Current	I_{GT}		—	50	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D = 200V, T_a = 125^\circ C$	0.2	—	V
Holding Current	I_H	$R_L = 100\Omega$	—	150	mA
Commutating Capacitor	C_c	$C_M = 1000\mu F, V_{CM} = 350V, I_{TM} = 230A$ $L_M = 50\mu H, V_{GR} = -6V$	—	2.7	μF
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient	—	90	$^\circ C / W$

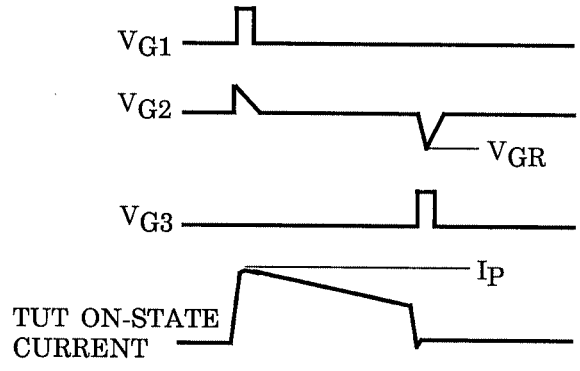
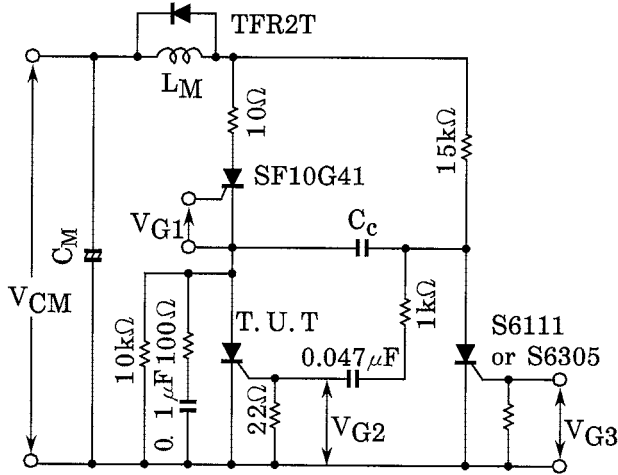
MARKING

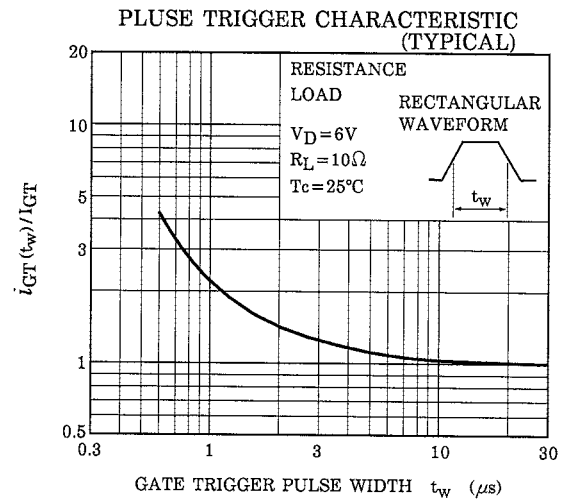
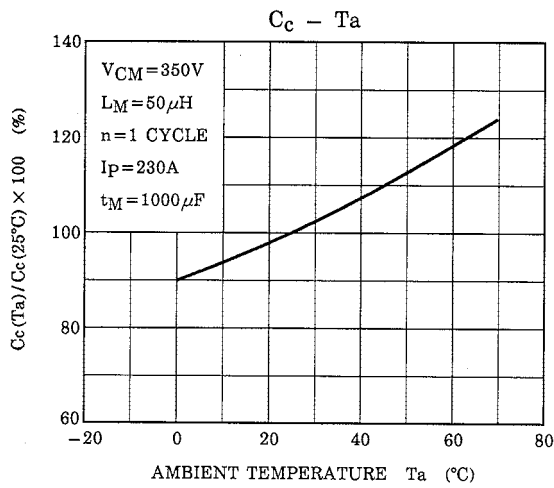
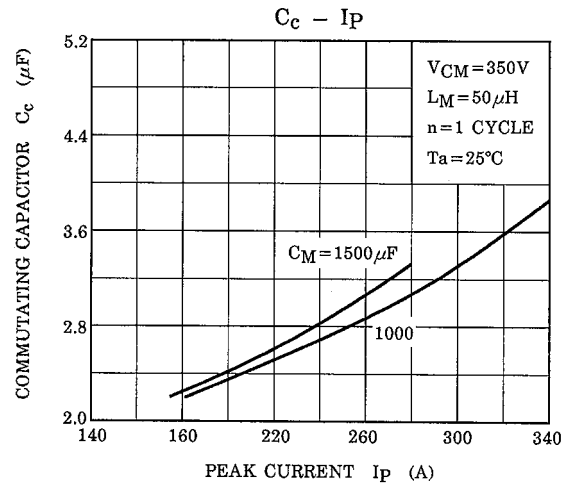
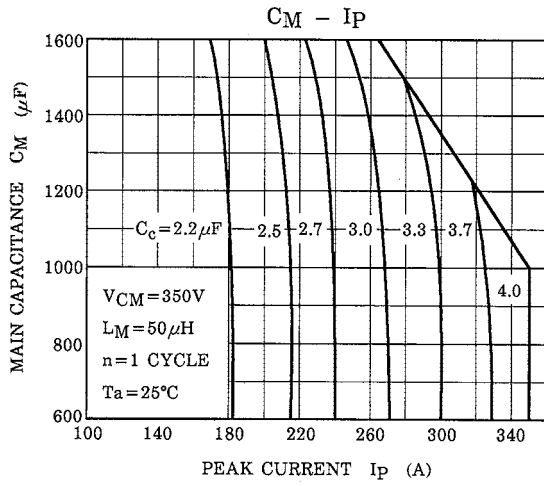


NUMBER	SYMBOL		MARK
*1	TYPE	SH8G41	SH8G41
*2	<p>Lot Number</p> <p>Month (Starting from Alphabet A)</p> <p>Year (Last Decimal Digit of the Current Year)</p>		<p>Example</p> <p>8A : January 1998</p> <p>8B : February 1998</p> <p>8L : December 1998</p>



COMMUTATING CIRCUIT AND CONDITION





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