

TOSHIBA THYRISTOR SILICON PLANAR TYPE

SF0R5G43,SF0R5J43

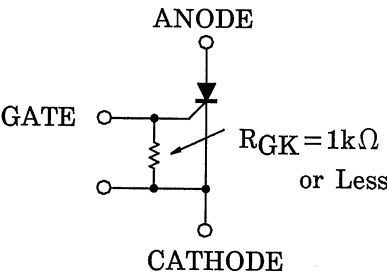
LOW POWER SWITCHING AND CONTROL APPLICATIONS

- Repetitive Peak Off-State Voltage : $V_{DRM} = 400,600V$
Repetitive Peak Reverse Voltage : $V_{RRM} = 400,600V$
- Average On-State Current : $I_T (AV) = 500mA$
- Plastic Mold Type.

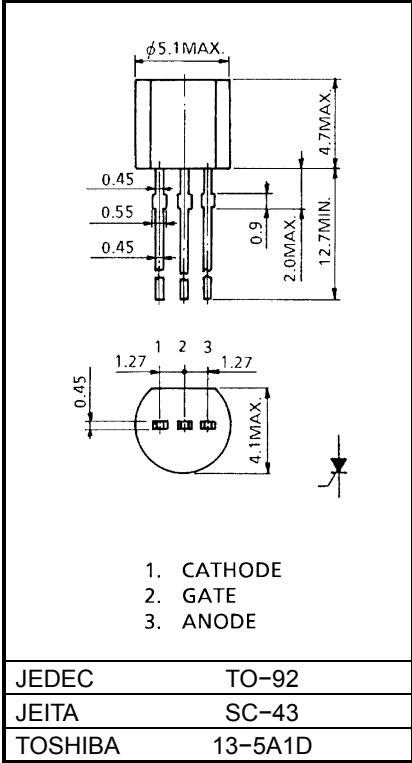
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage ($R_{GK} = 1k\Omega$)	SF0R5G43	400	V
	SF0R5J43	600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $R_{GK} = 1k\Omega$, $T_j = 0\sim 110^{\circ}C$)	SF0R5G43	500	V
	SF0R5J43	720	
Average On-State Current (Half Sine Waveform $T_c = 30^{\circ}C$)	$I_T (AV)$	500	mA
R.M.S On-State Current	$I_T (RMS)$	800	mA
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	7 (50Hz)	A
		8 (60Hz)	
I^2t Limit Value	I^2t	0.25	A^2s
Peak Gate Power Dissipation	P_{GM}	1	W
Average Gate Power Dissipation	$P_G (AV)$	0.01	W
Peak Forward Gate Voltage	V_{FGM}	8	V
Peak Reverse Gate Voltage	V_{RGM}	-5	V
Peak Forward Gate Current	I_{GM}	500	mA
Junction Temperature	T_j	-65~125	$^{\circ}C$
Storage Temperature Range	T_{stg}	-65~125	$^{\circ}C$

Note: Should be used with gate resistance as follows.



Unit: mm

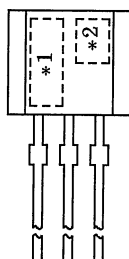


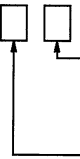
Weight: 0.2g

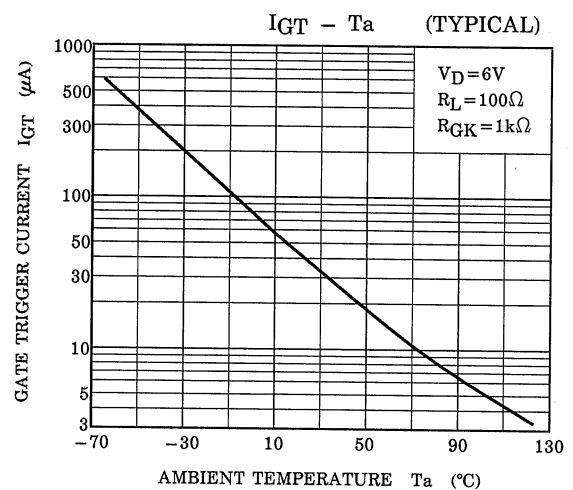
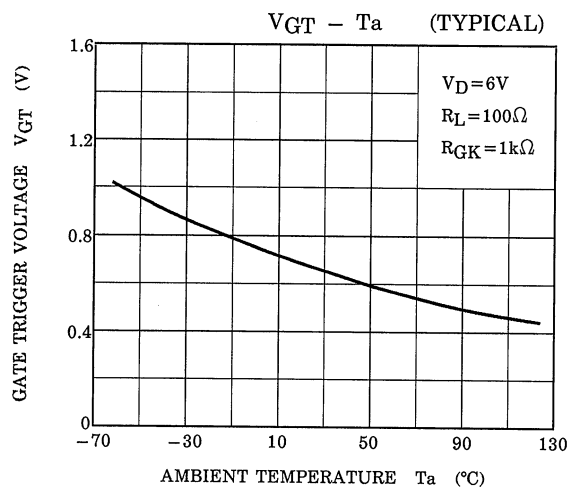
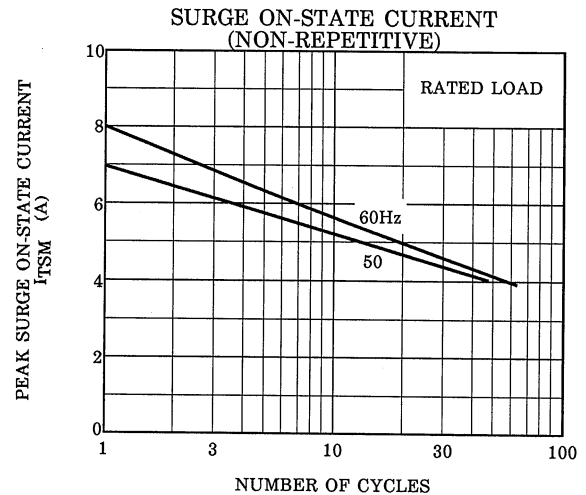
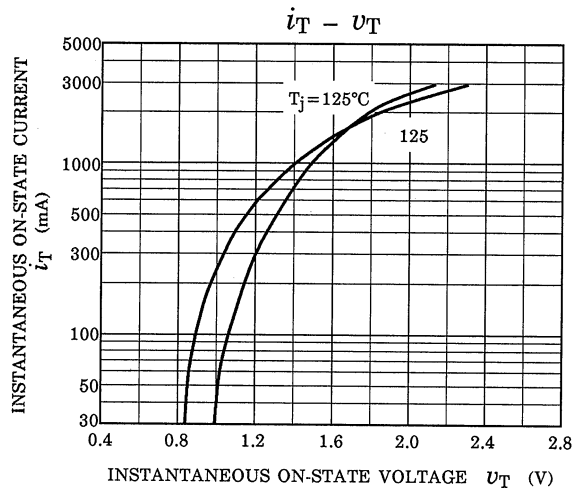
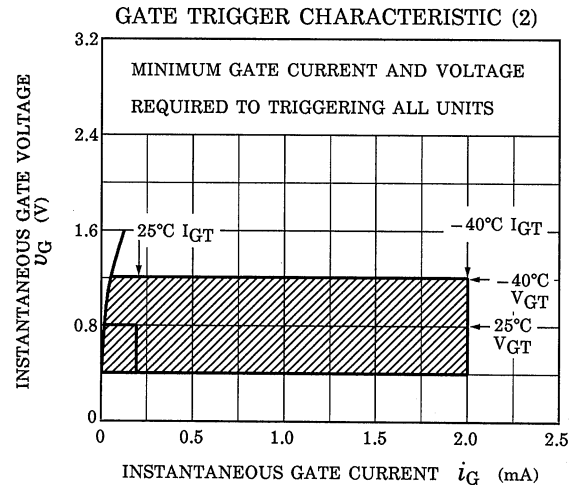
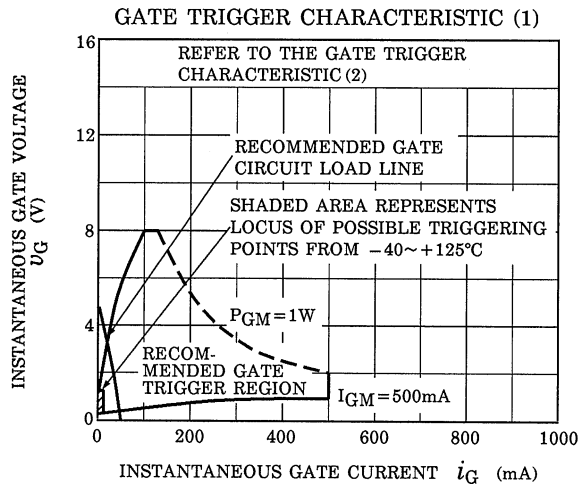
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

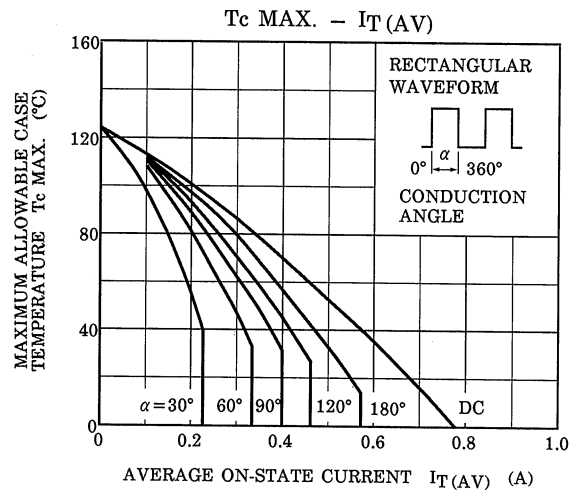
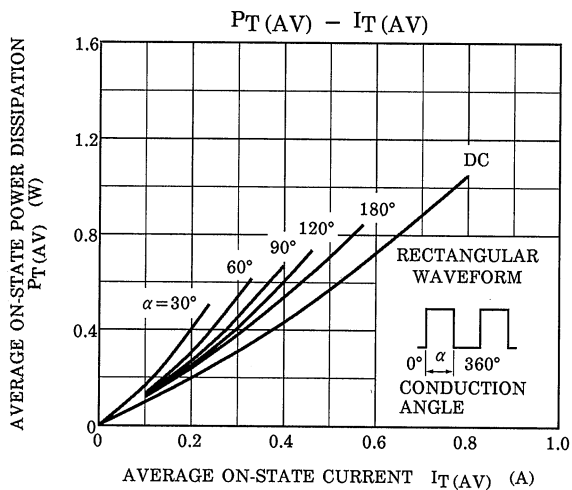
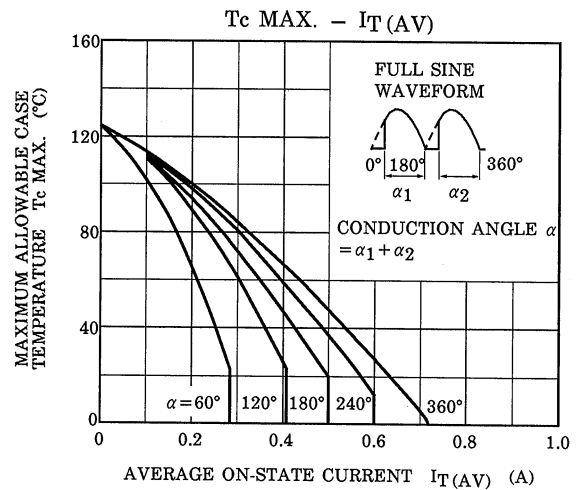
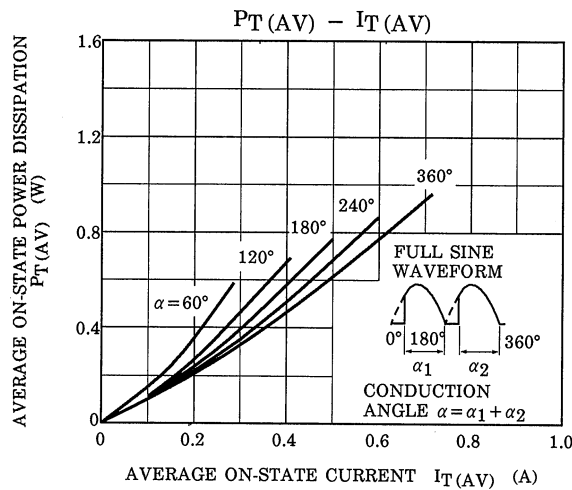
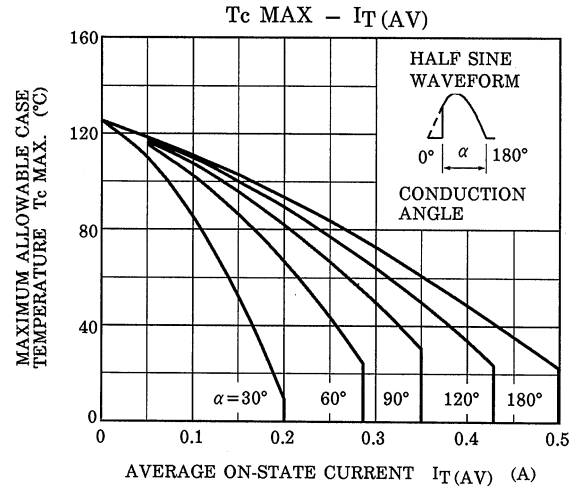
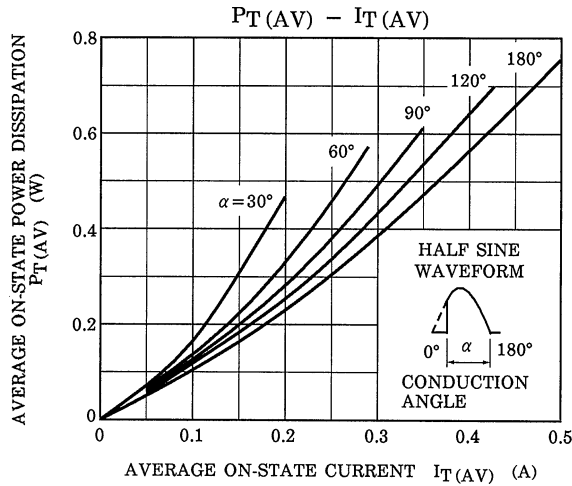
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{DRM} = V_{RRM} = \text{Rated}$, $R_{GK} = 1k\Omega$, $T_j = 125^\circ\text{C}$	—	—	50	μA
Peak On-State Voltage	V_{TM}	$I_{TM} = 1\text{A}$	—	—	1.5	V
Gate Trigger Voltage	V_{GT}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $R_{GK} = 1k\Omega$	—	—	0.8	V
Gate Trigger Current	I_{GT}		—	—	200	μA
Gate Non-Trigger Voltage	V_{GD}	$V_D = \text{Rated}$, $R_{GK} = 1k\Omega$, $T_a = 125^\circ\text{C}$	0.2	—	—	V
Holding Current	I_H	$R_L = 100\Omega$, $R_{GK} = 1k\Omega$	—	—	5	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	—	—	125	$^\circ\text{C} / \text{W}$
	$R_{th(j-a)}$	Junction to Ambient	—	—	230	

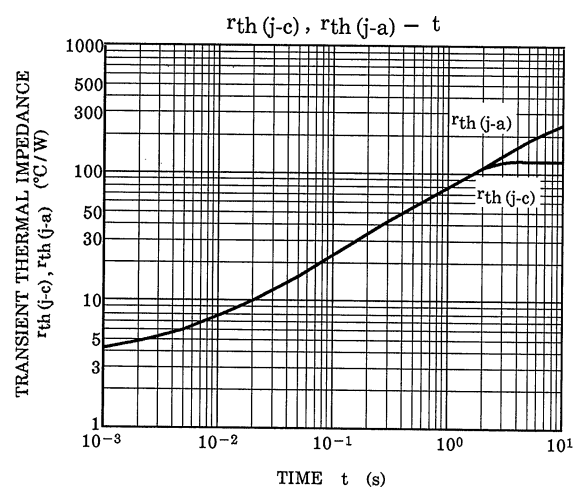
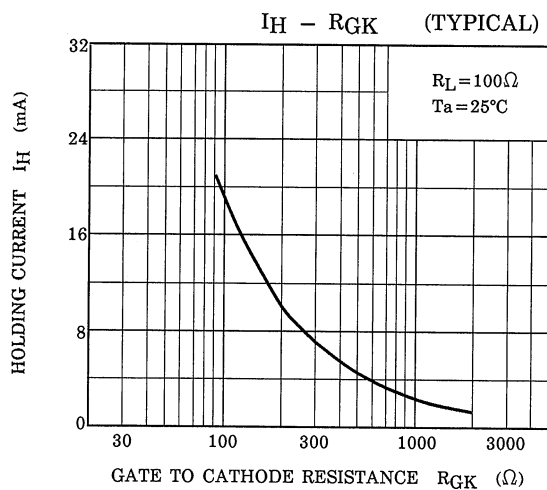
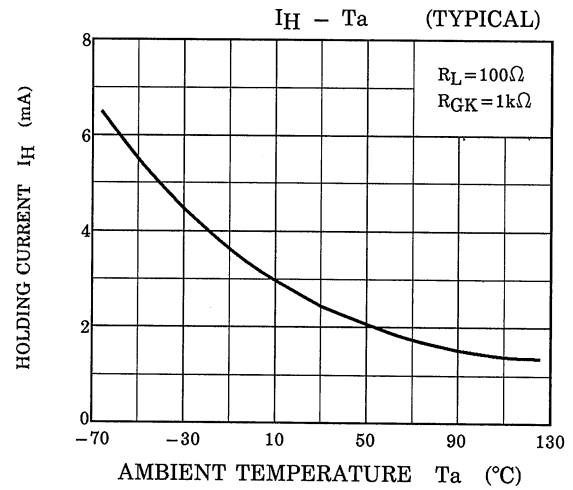
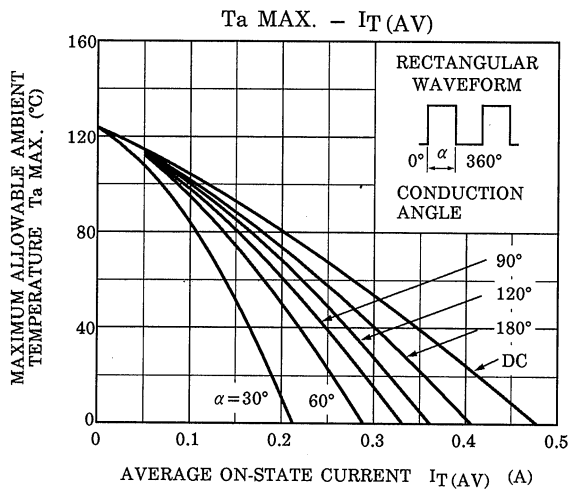
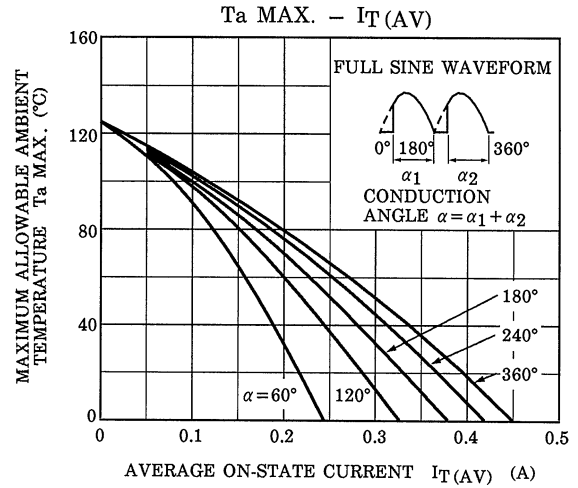
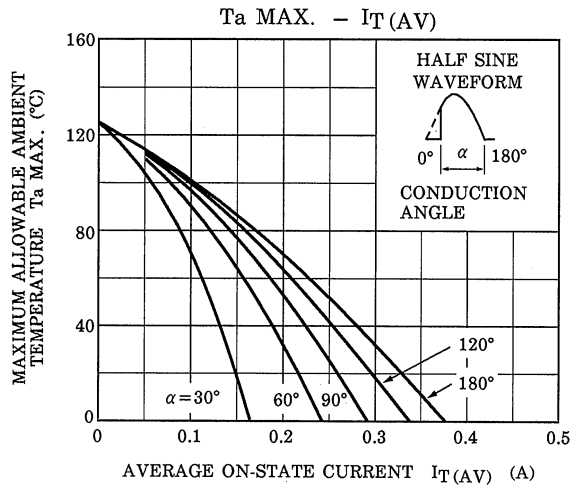
MARKING



NUMBER	SYMBOL		MARK
*1	TYPE	SF0R5G43	F0R5G
		SF0R5J43	F0R5J
*2	Lot Number  Month (Starting from Alphabet A) Year (Last Decimal Digit of the Current Year)		Example 8A: January 1998 8B: February 1998 8L: December 1998







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