

TOSHIBA THYRISTOR SILICON PLANAR TYPE

SF0R5G43, SF0R5J43

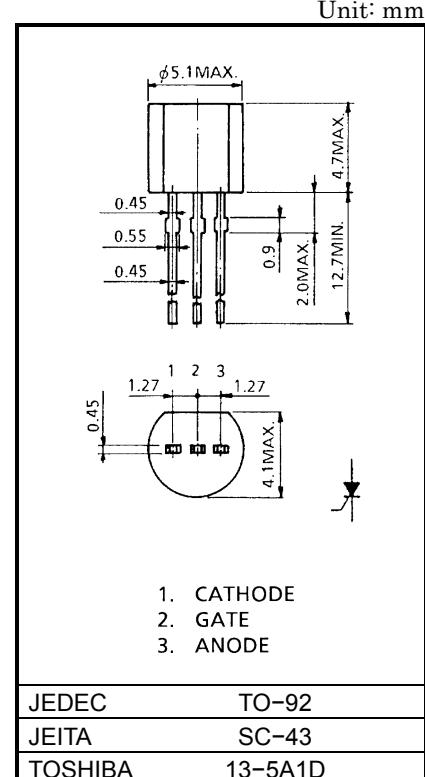
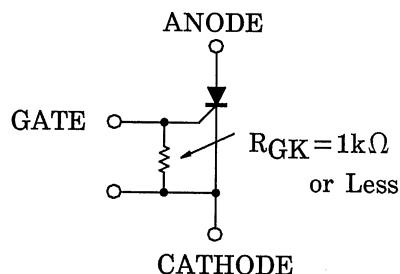
LOW POWER SWITCHING AND CONTROL APPLICATIONS

- 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 ($R_{GK} = 1k\Omega$)	V_{DRM} V_{RRM}	400	V
		600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive $< 5ms$, $R_{GK} = 1k\Omega$, $T_j = 0\sim 110^\circ C$)	V_{RSM}	500	V
		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	$^\circ C$

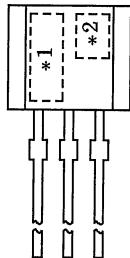
Note: Should be used with gate resistance as follows.



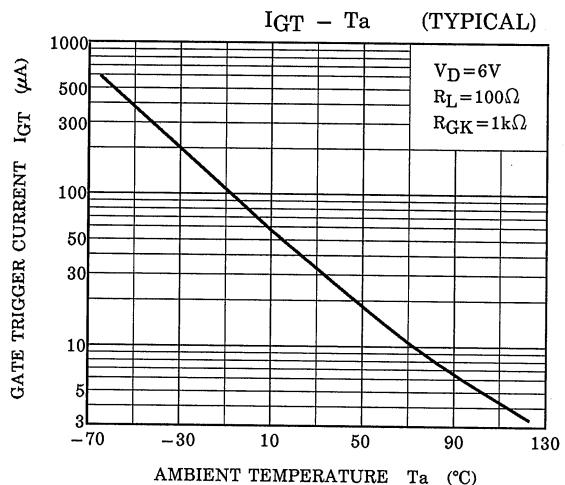
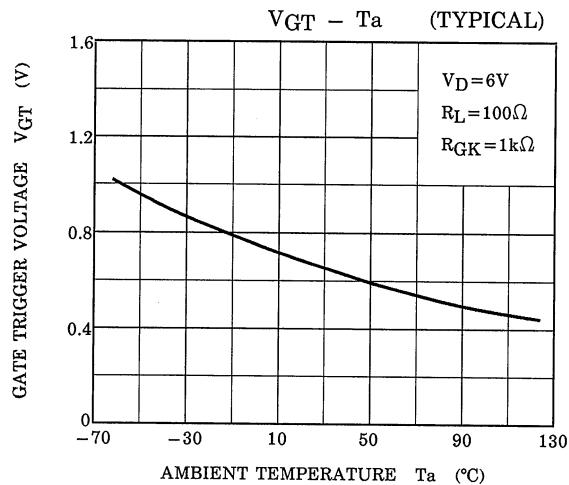
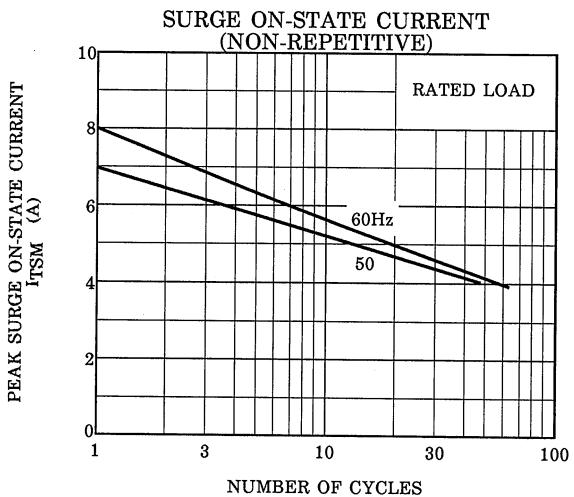
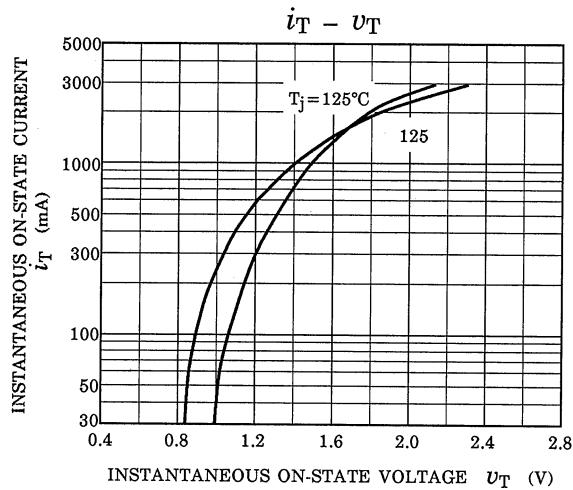
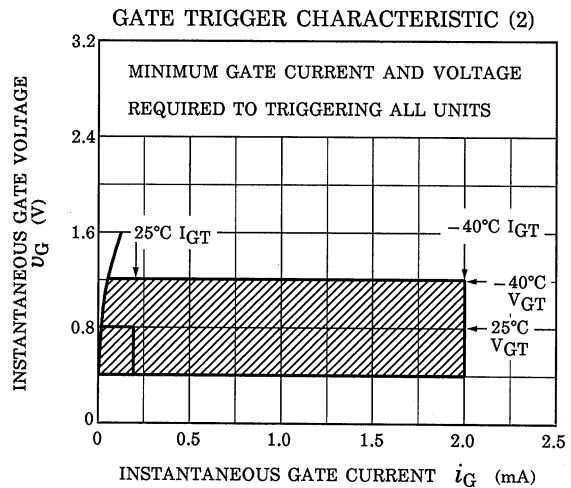
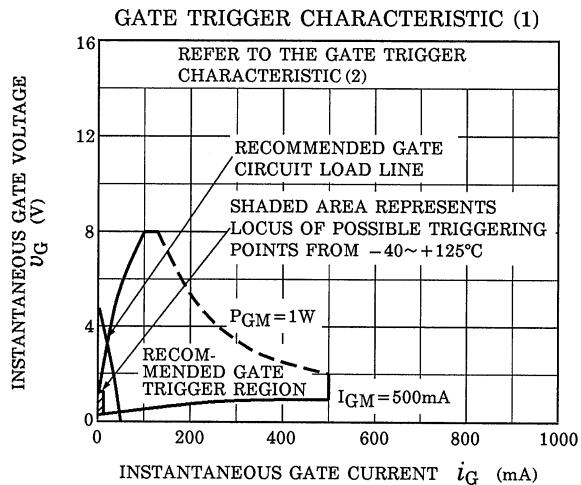
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

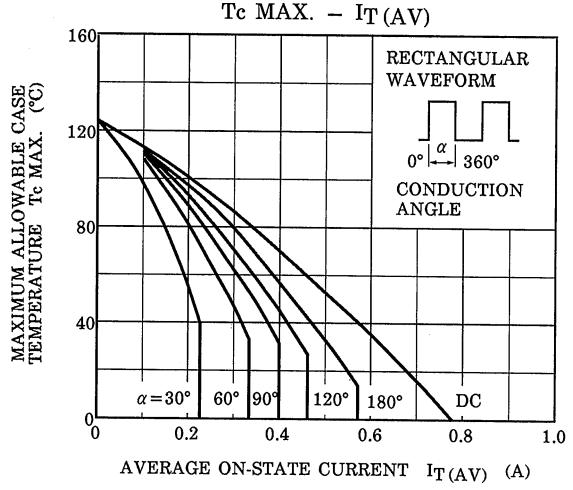
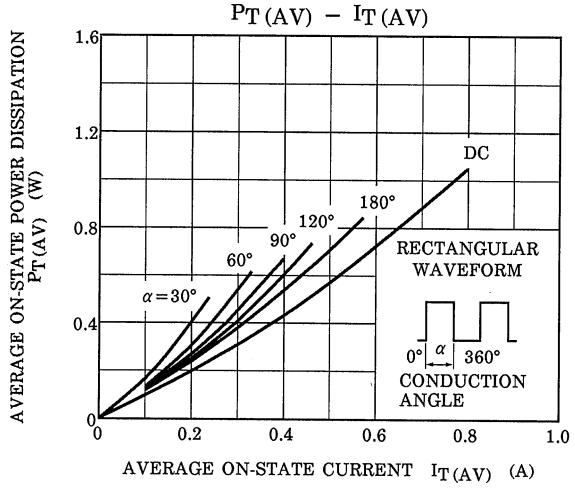
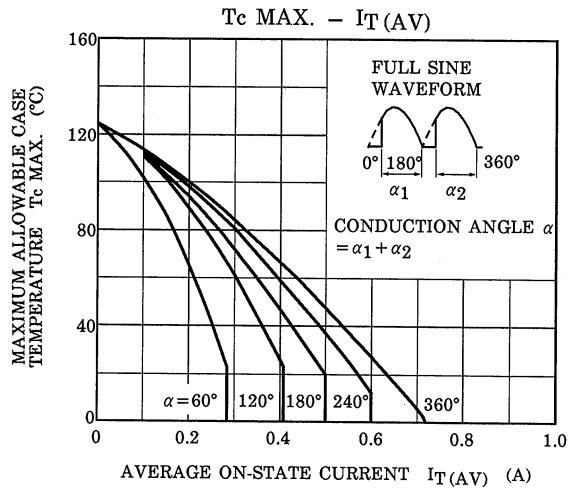
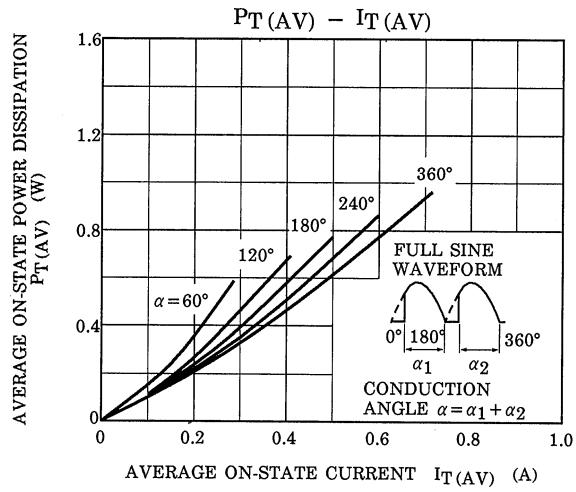
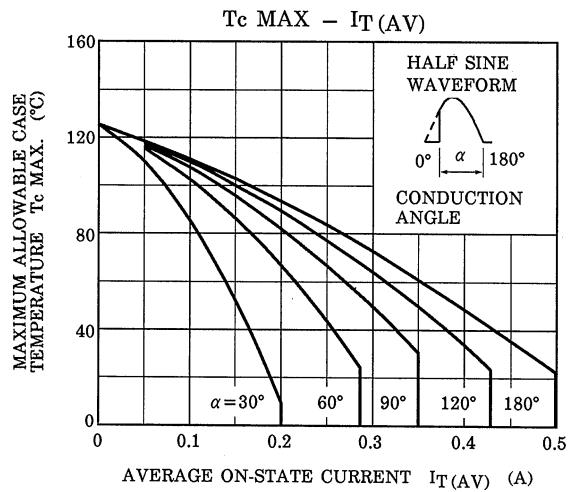
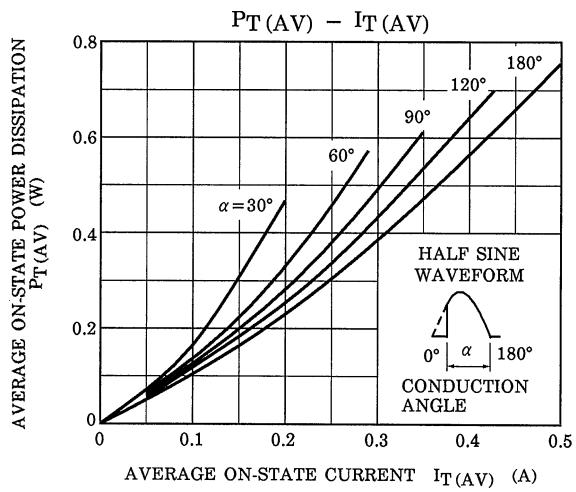
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I _{DRM} I _{RRM}	V _{DRM} = V _{RRM} = Rated, R _{GK} = 1kΩ, T _j = 125°C	—	—	50	μA
Peak On-State Voltage	V _{TM}	I _{TM} = 1A	—	—	1.5	V
Gate Trigger Voltage	V _{GT}	V _D = 6V, R _L = 100Ω, R _{GK} = 1kΩ	—	—	0.8	V
Gate Trigger Current	I _{GT}		—	—	200	μA
Gate Non-Trigger Voltage	V _{GD}	V _D = Rated, R _{GK} = 1kΩ, T _a = 125°C	0.2	—	—	V
Holding Current	I _H	R _L = 100Ω, R _{GK} = 1kΩ	—	—	5	mA
Thermal Resistance	R _{th} (j-c)	Junction to Case	—	—	125	°C / W
	R _{th} (j-a)	Junction to Ambient	—	—	230	

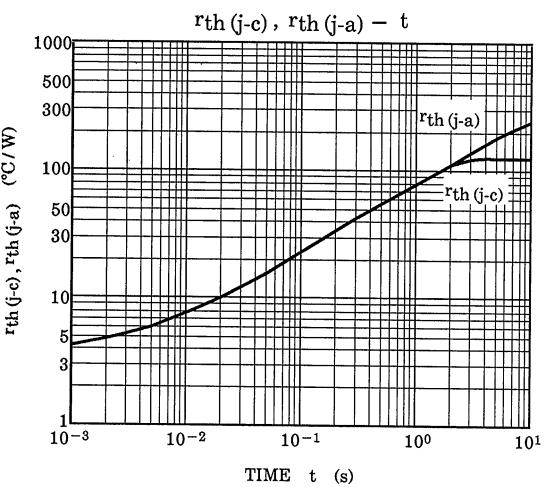
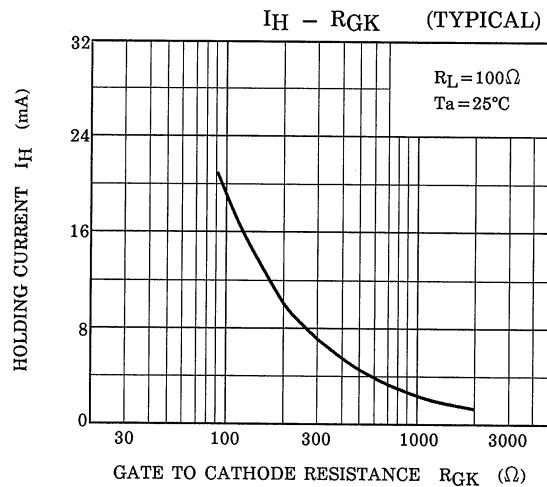
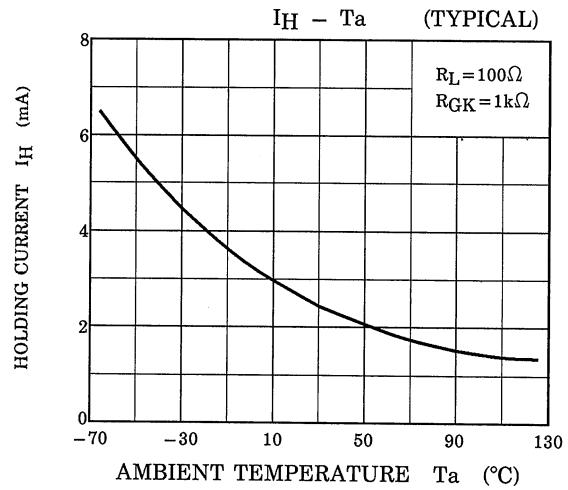
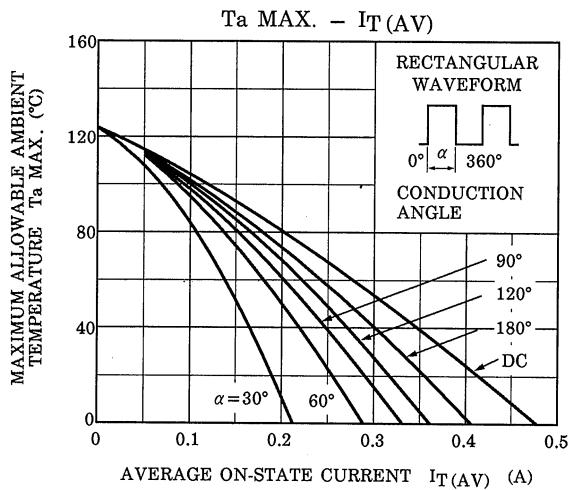
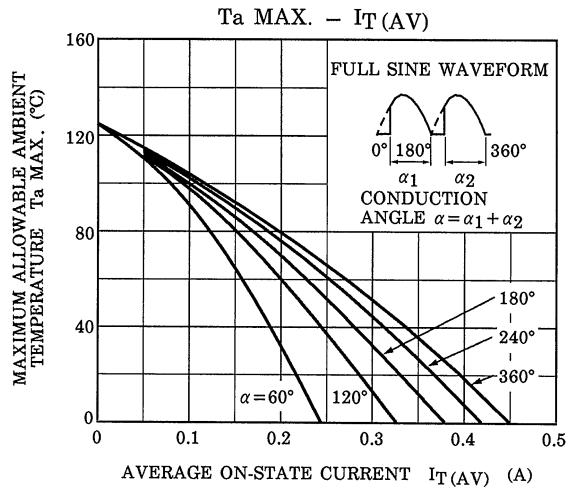
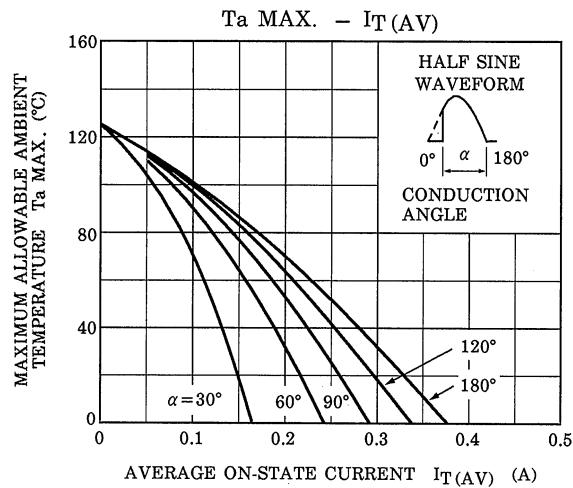
MARKING



NUMBER	SYMBOL	MARK
*1	TYPE	SF0R5G43
		SF0R5J43
*2	Lot Number 	Example 8A: January 1998 8B: February 1998 8L: December 1998







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