

SF16(B,D,F,G,J,L,N,Q)13

THYRISTOR
SILICON DIFFUSED TYPE

MEDIUM POWER CONTROL APPLICATIONS.

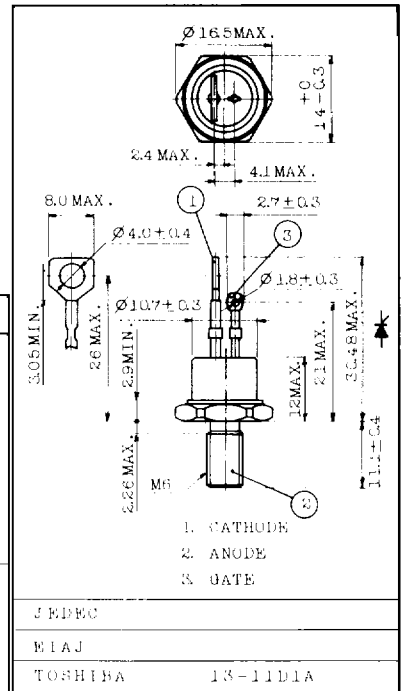
FEATURES:

- Repetitive Peak Off-State Voltage: V_{DRM} | =100 ~ 1200V
Repetitive Peak Reverse Voltage : V_{RRM}
- Average On-State Current : $I_T(AV)$ =16V
- R.M.S On-State Current : $I_T(RMS)$ =25A
- Available Heat Sink VG-207B

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF16B13	100	V
	SF16D13	200	
	SF16F13	300	
	SF16G13	400	
	SF16J13	600	
	SF16L13	800	
	SF16N13	1000	
	SF16Q13	1200	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j=0 \sim 125^{\circ}C$)	SF16B13	150	V
	SF16D13	300	
	SF16F13	400	
	SF16G13	500	
	SF16J13	720	
	SF16L13	960	
	SF16N13	1200	
	SF16Q13	1440	
Average On-State Current (Half Sine Waveform $T_c=65^{\circ}C$)	$I_T(AV)$	16	A
R.M.S On-State Current	$I_T(RMS)$	25	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	200(50Hz)	A
		220(60Hz)	
I^2t Limit Value ($t=1 \sim 10ms$)	I^2t	200	A^2s
Peak Gate Power Dissipation	P_{GM}	5	W
Average Gate Power Dissipation	$P_{G(AV)}$	0.5	W
Peak Forward Gate Voltage	V_{FGM}	10	V
Peak Reverse Gate Voltage	V_{RGM}	-5	V
Peak Forward Gate Current	I_{GM}	2	A
Junction Temperature	T_j	-65 ~ 125	$^{\circ}C$
Storage Temperature Range	T_{stg}	-65 ~ 125	$^{\circ}C$
Stud Torque (Note)	-	30	kg·cm

Unit in mm



Mounting Kit No. AC51

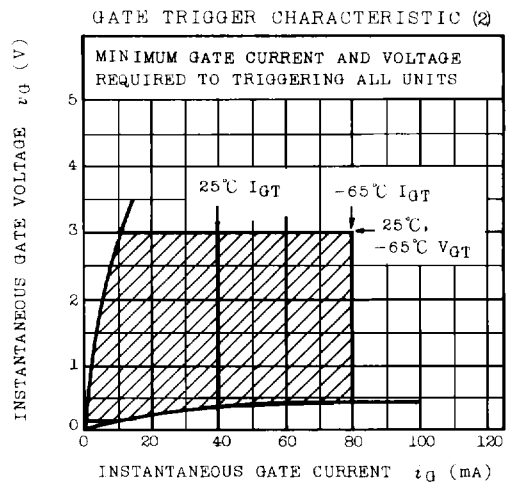
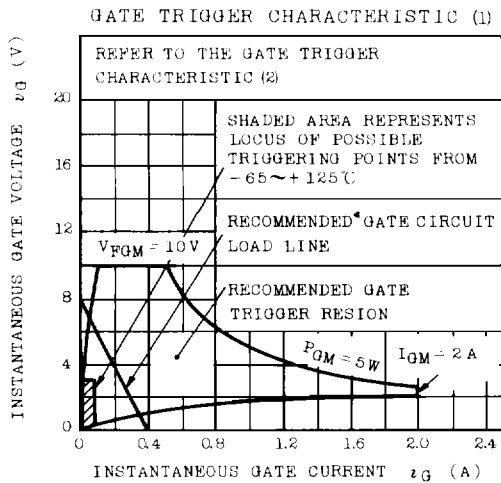
Weight : 10.5g

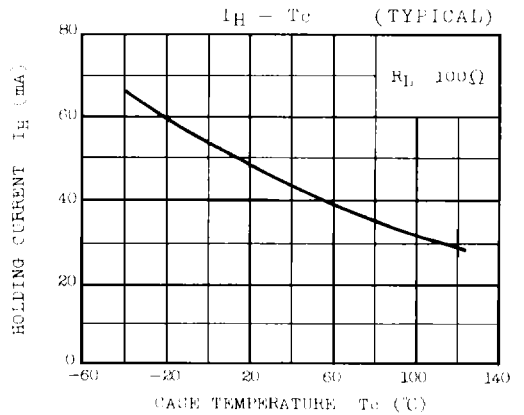
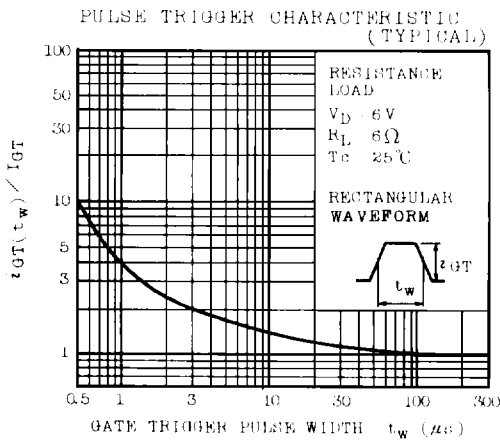
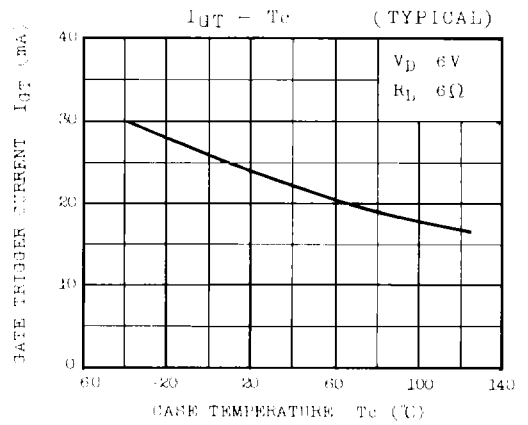
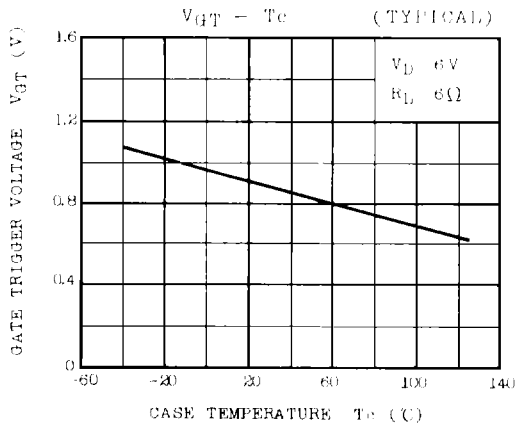
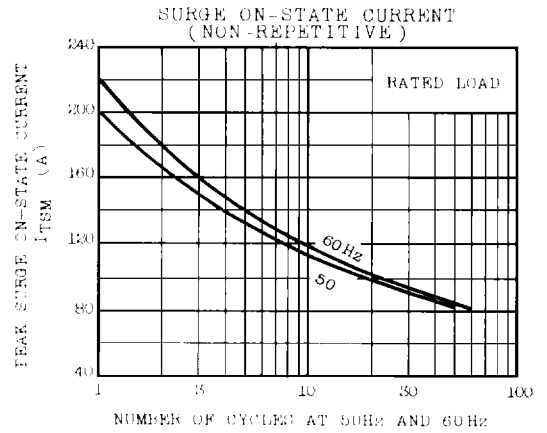
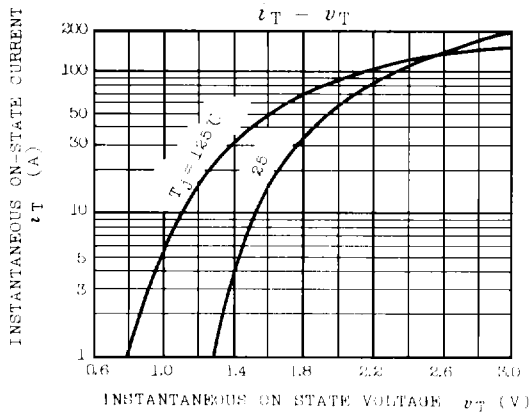
Note: Recommended Torque 24kg·cm

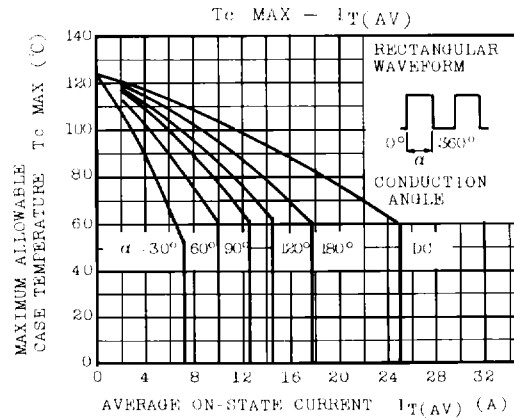
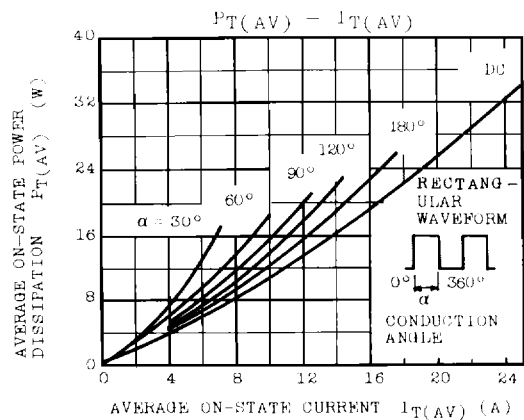
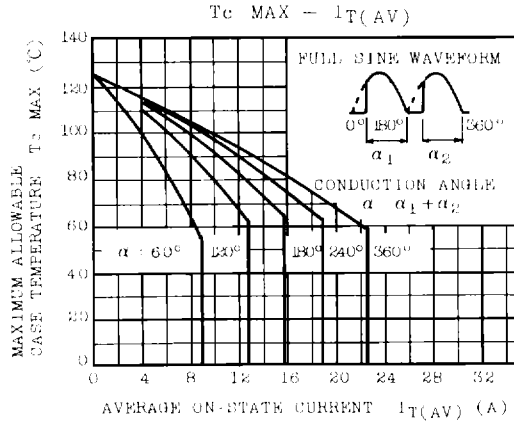
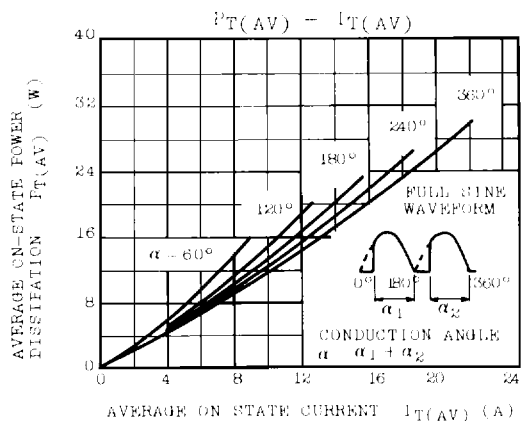
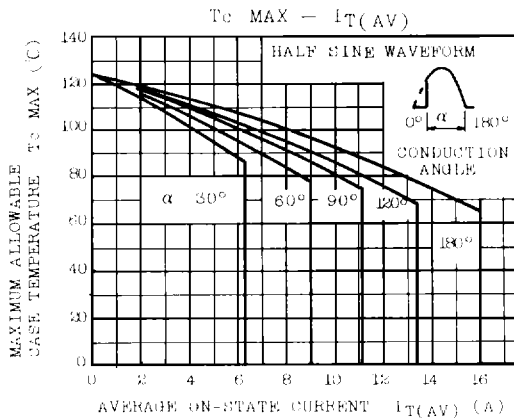
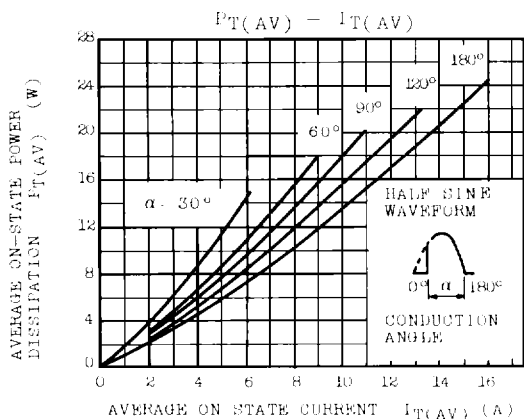
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ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	SF16B13	$V_{DRM}=V_{RRM}=\text{Rated}, T_j=125^\circ\text{C}$	-	-	6	mA
	SF16D13		-	-	6	
	SF16F13		-	-	6	
	SF16G13		-	-	6	
	SF16J13		-	-	6	
	SF16L13		-	-	4	
	SF16N13		-	-	3	
SF16Q13	-	-	3			
Peak On-State Voltage	V_{TM}	$I_{TM}=50\text{A}$	-	-	1.95	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}, R_L=6\Omega$	-	-	3	V
Gate Trigger Current	I_{GT}		-	-	40	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated} \times 1/2, T_c=125^\circ\text{C}$	0.15	-	-	V
Gate Non-Trigger Current	I_{GD}		0.5	-	-	mA
Holding Current	I_H	$R_L=100\Omega$	-	-	50	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	2	$^\circ\text{C/W}$







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