

SF5(B,D,F,G,J)13

THYRISTOR
SILICON DIFFUSED TYPE

MEDIUM POWER CONTROL APPLICATIONS.

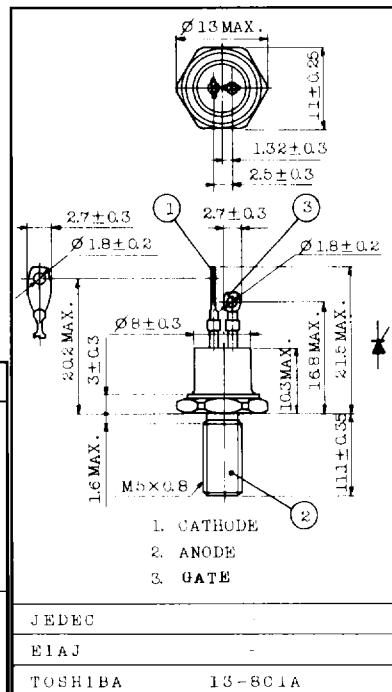
FEATURES:

- . Repetitive Peak Off-State Voltage: V_{DRM} | =100~600V
Repetitive Peak Reverse Voltage : V_{RRM}
- . Average On-State Current : $I_T(AV)$ =5A
- . R.M.S On-State Current : $I_T(RMS)$ =7.8A
- . Available Heat Sink VG-205B

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF5B13	100	V
	SF5D13	200	
	SF5F13	300	
	SF5G13	400	
	SF5J13	600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j=0 \sim 125^\circ\text{C}$)	SF5B13	150	V
	SF5D13	300	
	SF5F13	400	
	SF5G13	500	
	SF5J13	720	
Average On-State Current (Half Sine Waveform $T_c=77^\circ\text{C}$)	$I_T(AV)$	5	A
R.M.S On-State Current	$I_T(RMS)$	7.8	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	60(50Hz)	A
		66(60Hz)	
I^2t Limit Value ($t=1 \sim 10\text{ms}$)	I^2t	18	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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 ~ 150	$^\circ\text{C}$
Stud Torque (Note)	-	20	$\text{kg}\cdot\text{cm}$

Unit in mm



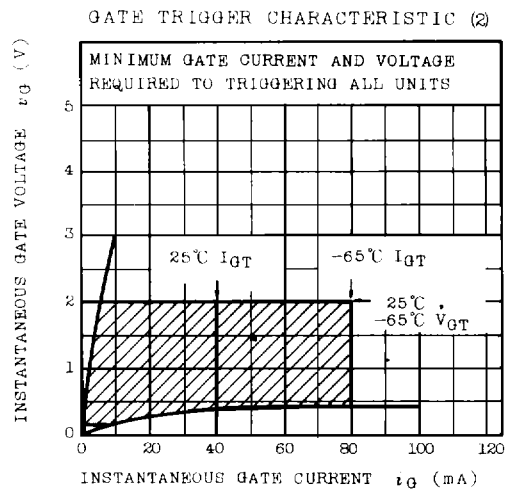
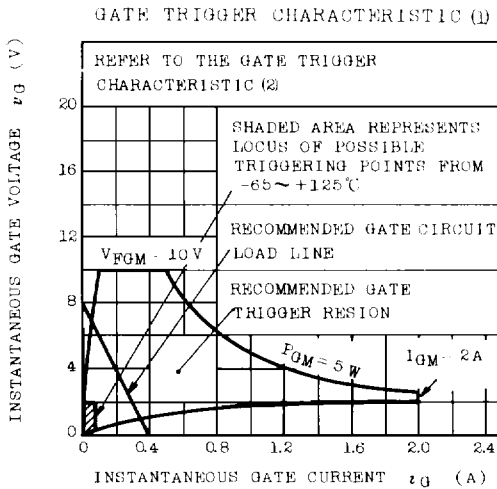
Mounting Kit No. AC23A

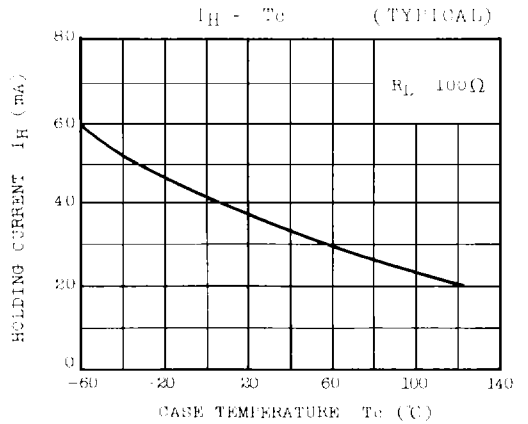
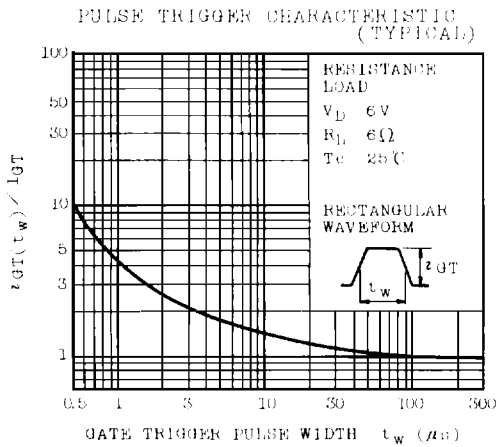
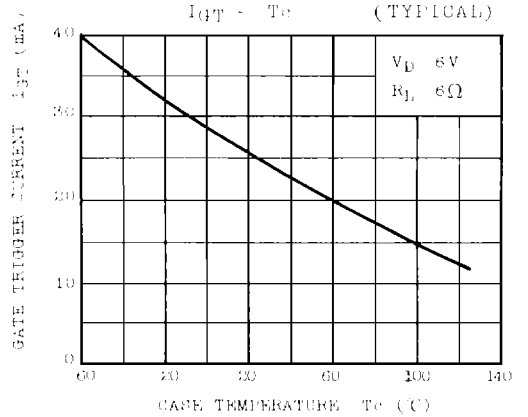
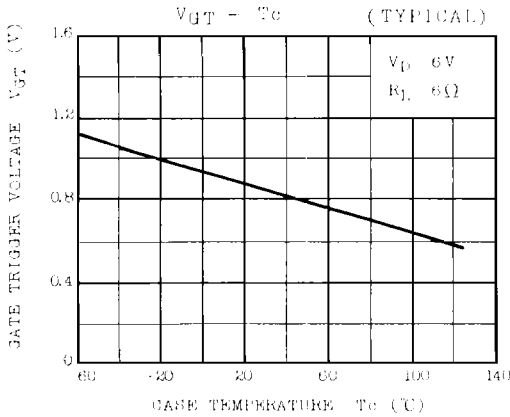
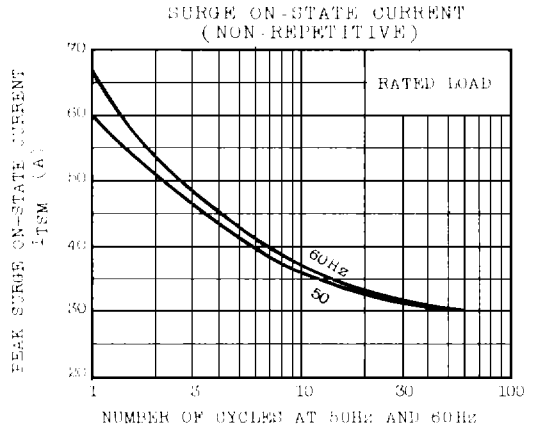
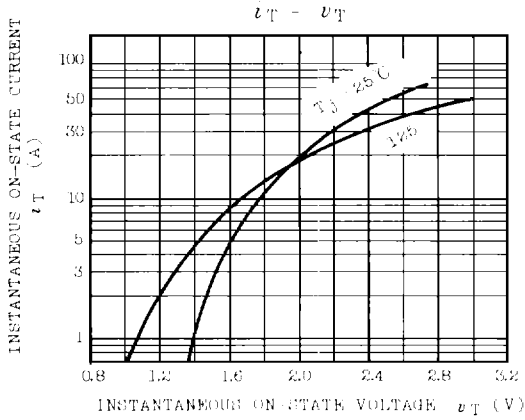
Weight : 5.5g

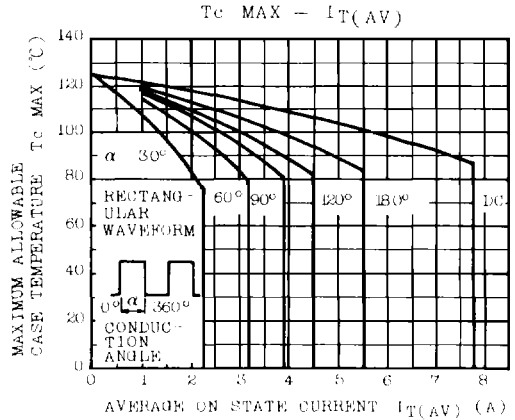
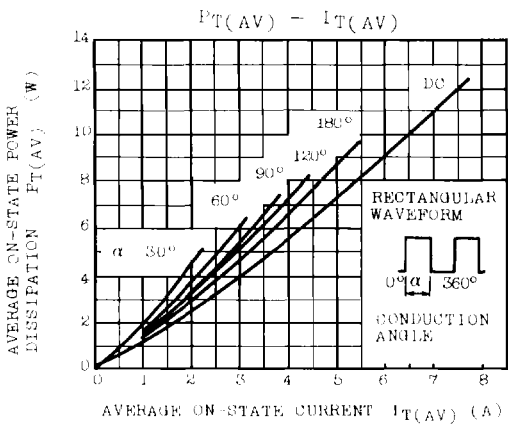
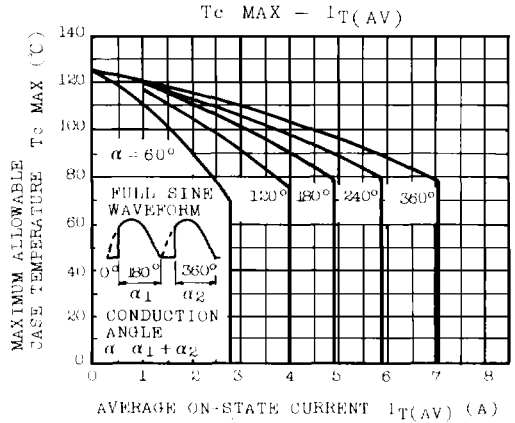
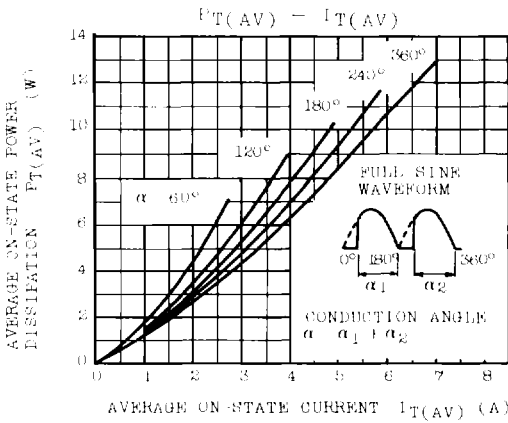
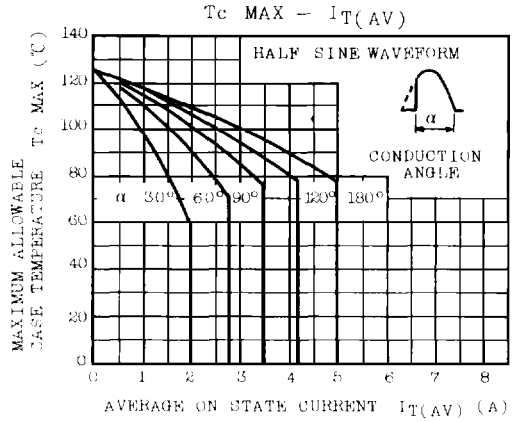
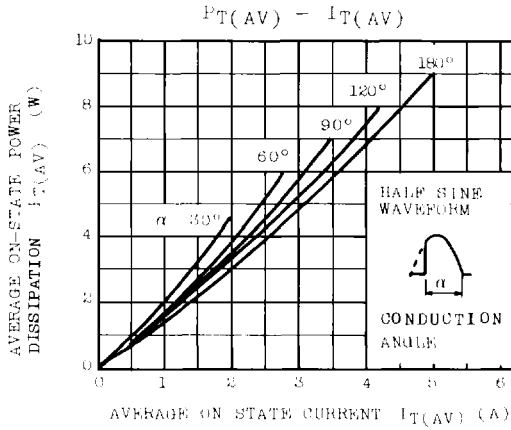
Note: Recommended Torque 16kg·cm

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	SF5B13	$V_{DRM}=V_{RRM}=\text{Rated},$ $T_j=125^\circ\text{C}$	-	-	9	mA
	SF5D13		-	-	6	
	SF5F13		-	-	4	
	SF5G13		-	-	2	
	SF5J13		-	-	2	
Peak On-State Voltage	V_{TM}	$I_{TM}=20\text{A}$	-	-	2.0	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}, R_L=6\Omega$	-	-	2	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	$R_L=100\Omega$	-	-	60	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	3.1	$^\circ\text{C/W}$







SF5(B,D,F,G,J)13

