

SF8(B,D,G,J)41

THYRISTOR
SILICON DIFFUSED TYPE

MEDIUM POWER CONTROL APPLICATIONS.

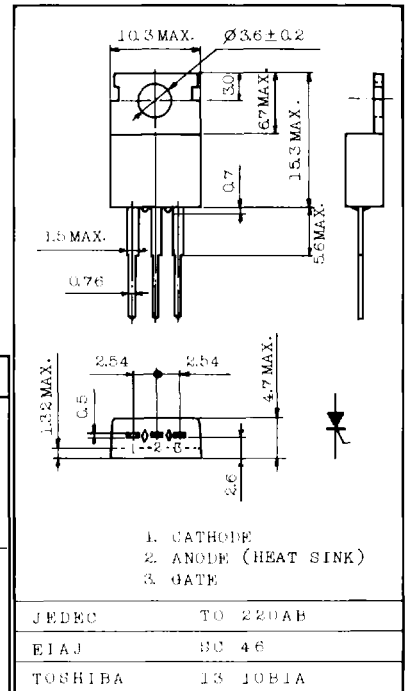
Unit in mm

FEATURES:

- Repetitive Peak Off-State Voltage: V_{DRM}) =100~600V
 Repetitive Peak Reverse Voltage : V_{RRM}
- Average On-State Current : $I_T(AV)$ =8A
- JEDEC TO-220AB Package

MAXIMUM RATINGS

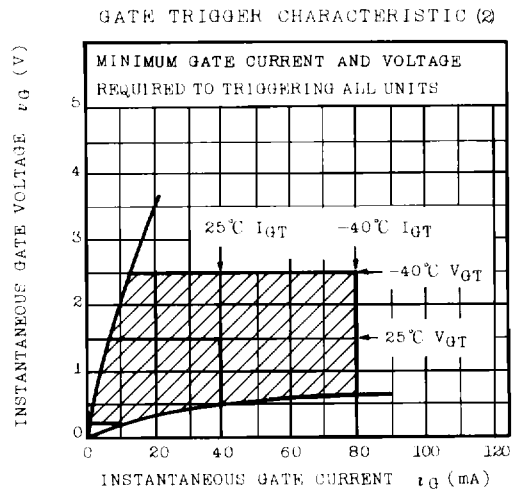
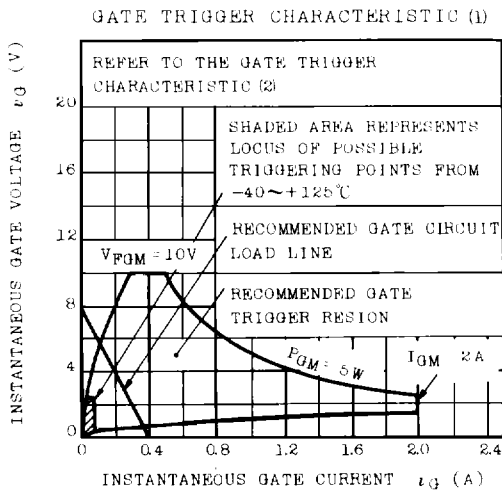
CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF8B41	V_{DRM} V_{RRM}	100	V
	SF8D41		200	
	SF8G41		400	
	SF8J41		600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j=0 \sim 125^\circ\text{C}$)	SF8B41	V_{RSM}	150	V
	SF8D41		300	
	SF8G41		500	
	SF8J41		720	
Average On-State Current (Half Sine Waveform $T_c=83^\circ\text{C}$)		$I_T(AV)$	8	A
R.M.S On-State Current		$I_T(RMS)$	12.6	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	120(50Hz)	A
			132(60Hz)	
I^2t Limit Value ($t=1 \sim 10\text{ms}$)		I^2t	72	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	-40 ~ 125	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-40 ~ 125	$^\circ\text{C}$

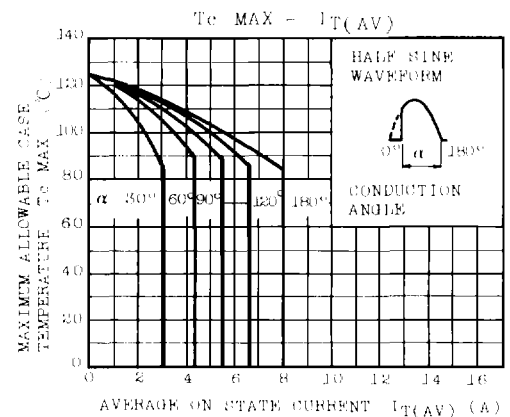
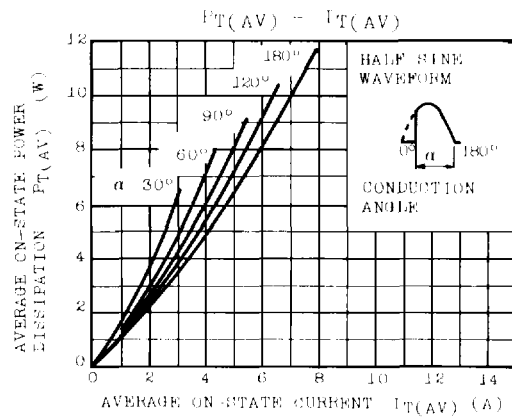
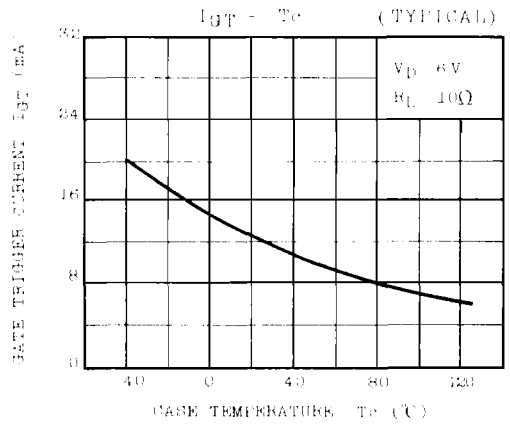
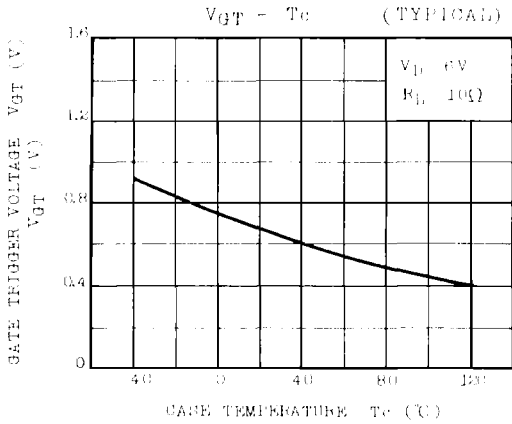
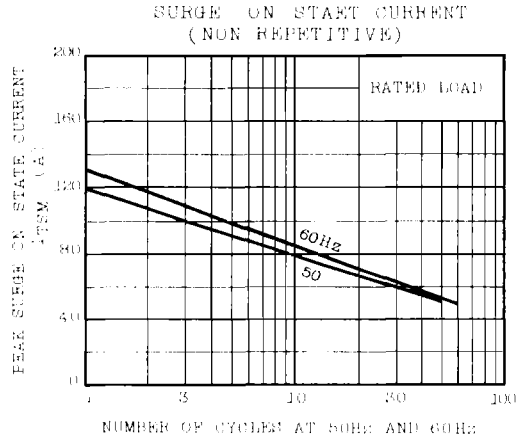
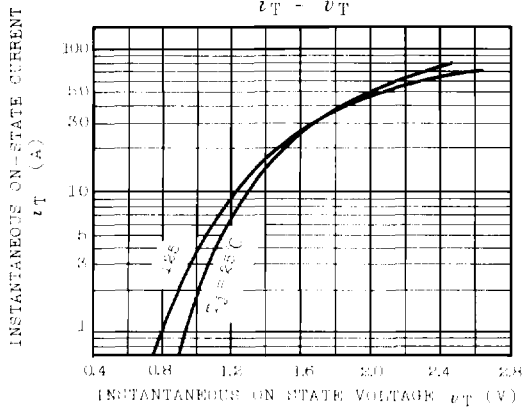


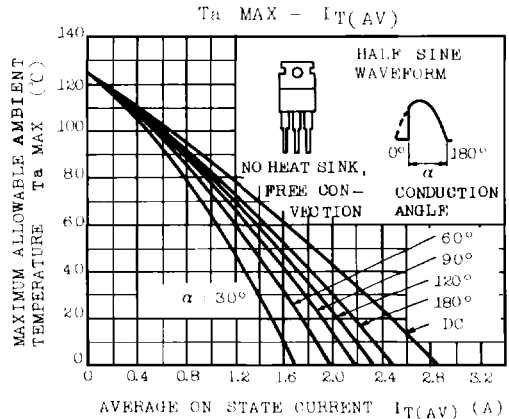
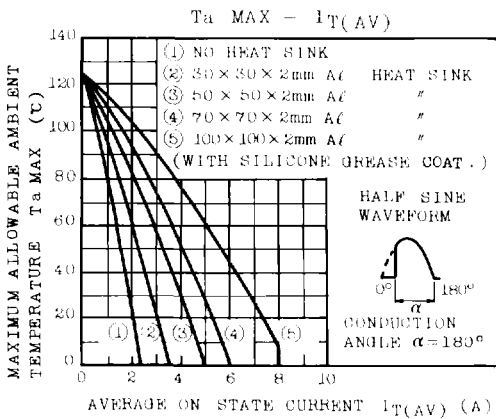
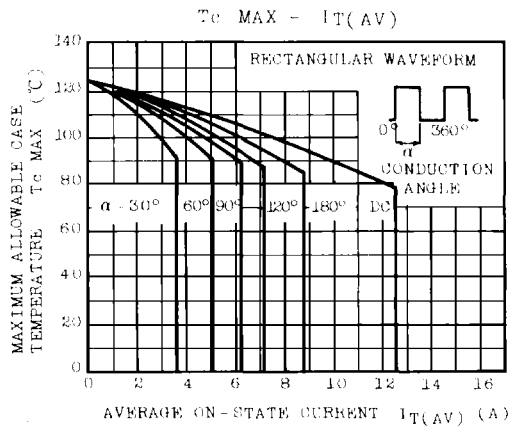
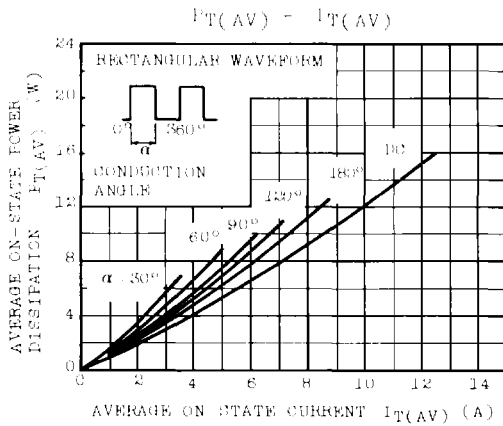
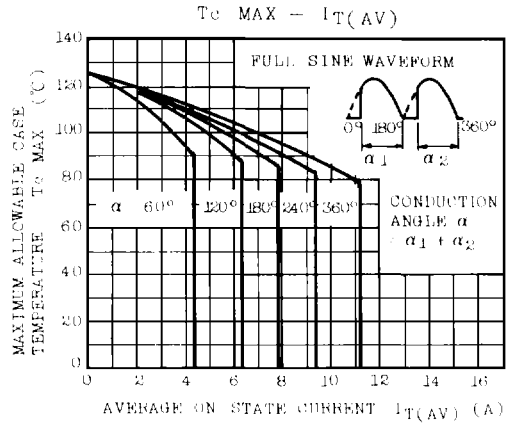
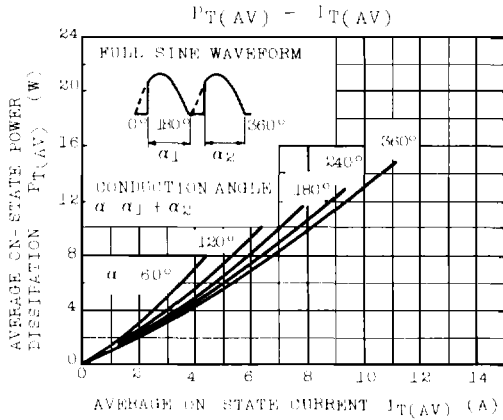
Weight : 2g

ELECTRICAL CHARACTERISTICS (Ta=25°C)

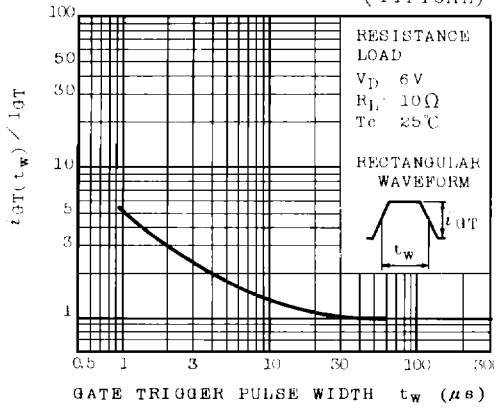
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{DRM}=V_{RRM}=\text{Rated}$, $T_j=125^\circ\text{C}$	-	-	2	mA
Peak On-State Voltage	V_{TM}	$I_{TM}=25\text{A}$	-	-	1.6	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}$, $R_L=10\Omega$	-	-	1.5	V
Gate Trigger Current	I_{GT}		-	-	40	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated}\times 2/3$, $T_c=125^\circ\text{C}$	0.2	-	-	V
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DRM}=\text{Rated}\times 2/3$, $T_c=125^\circ\text{C}$ Exponential Rise	30	-	-	V/ μs
Holding Current	I_H	$R_L=100\Omega$,	-	-	60	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	3	$^\circ\text{C/W}$



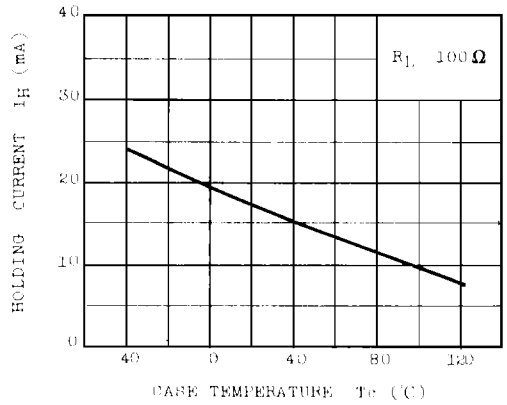




PULSE TRIGGER CHARACTERISTIC
(TYPICAL)



$I_H - T_c$



TRANSIENT THERMAL IMPEDANCE
(JUNCTION TO CASE)

