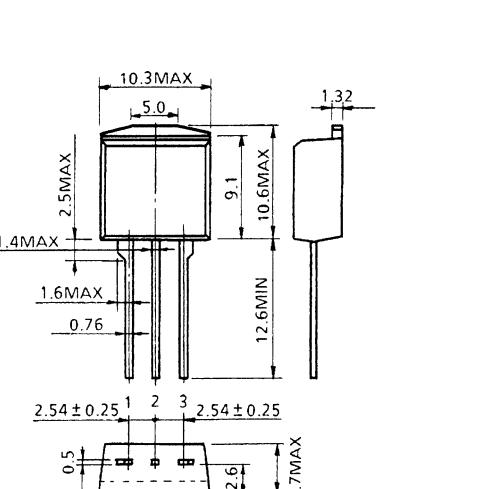
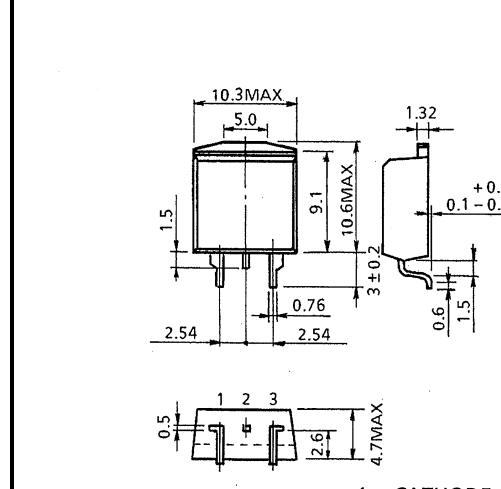


SF8G48,SF8J48,USF8G48,USF8J48

MEDIUM POWER CONTROL APPLICATIONS

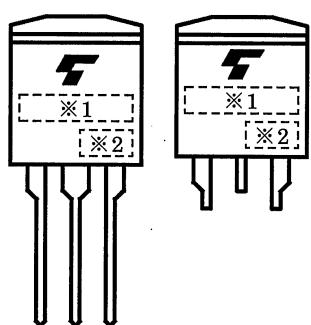
- Repetitive Peak Off-State Voltage : V_{DRM}=400,600V
- Repetitive Peak Reverse Voltage : V_{RRM}=400,600V
- Average On-State Current : I_T (AV) =8A
- Gate Trigger Current : I_{GT}=10mA Max.

Unit in mm

SF8G48 · SF8J48	USF8G48 · USF8J48
 <p>1. CATHODE 2. ANODE 3. GATE</p>	 <p>1. CATHODE 2. ANODE (BACK SIDE) 3. GATE</p>
JEDEC	—
JEITA	—
TOSHIBA	13-10J1B
TOSHIBA	13-10J2B

Weight: 1.7g

MARKING



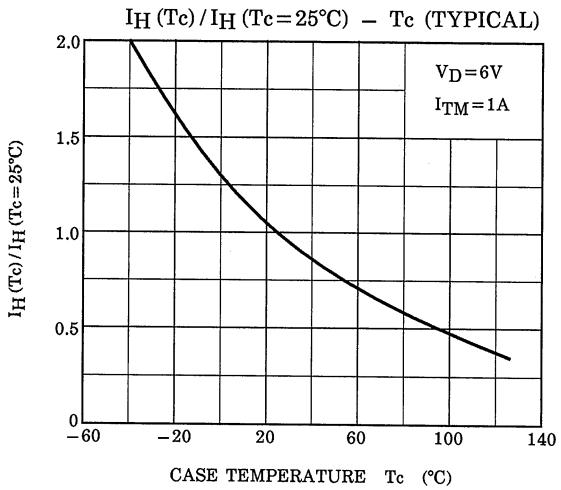
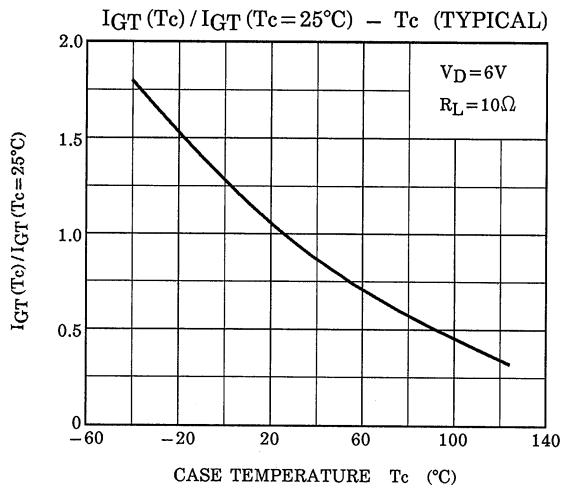
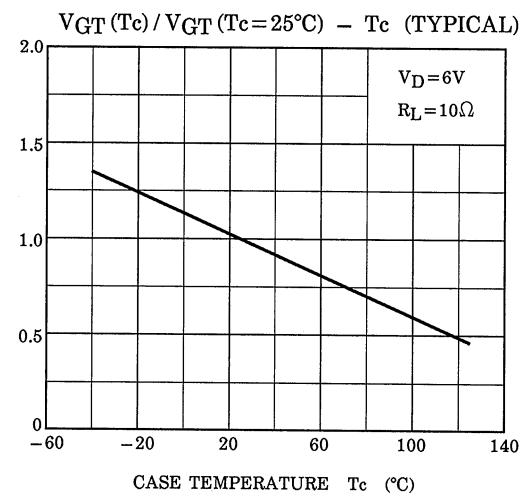
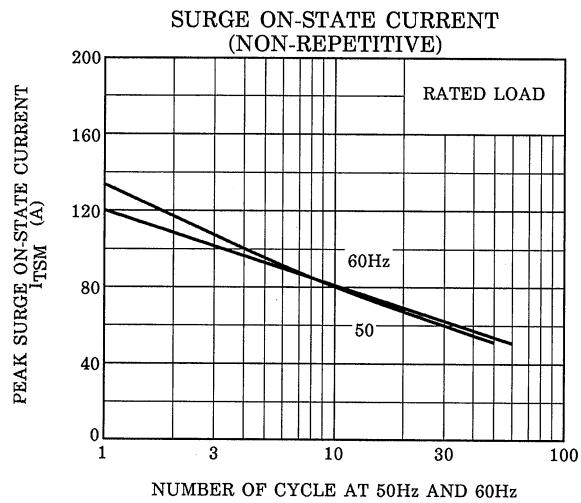
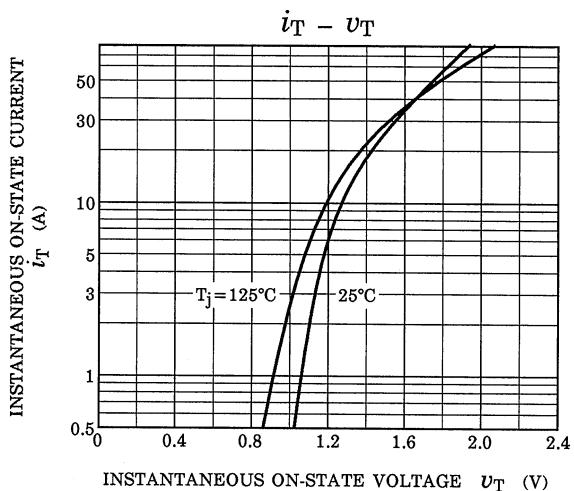
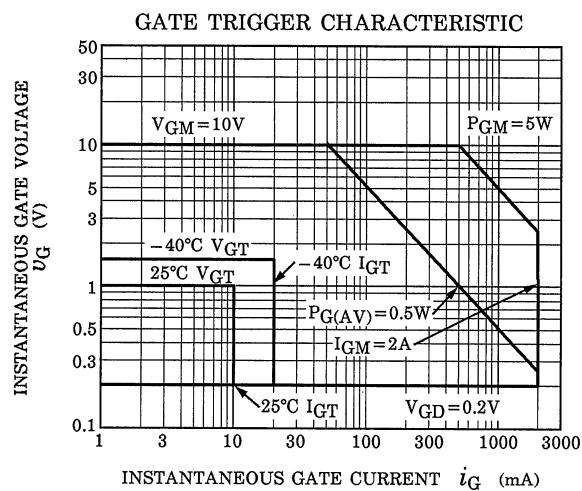
*1	MARK	F8G48	TYPE NAME	SF8G48, USF8G48
		F8J48		SF8J48, USF8J48
*2	Lot Number			
			Month (Starting from Alphabet A) Year (Last Decimal Digit of the Year of Manufacture)	

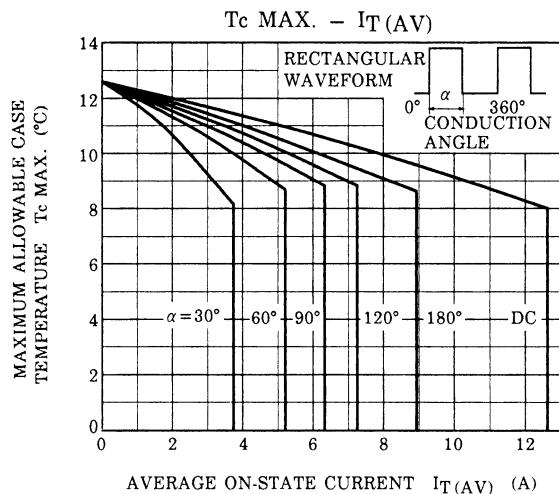
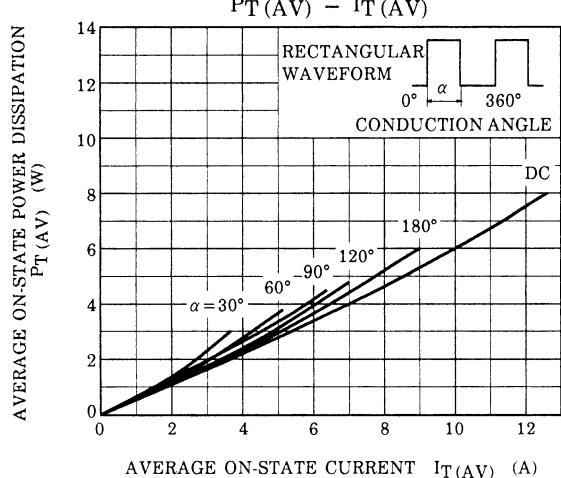
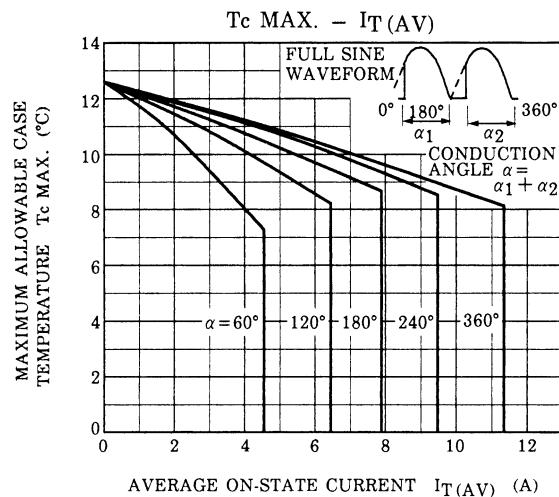
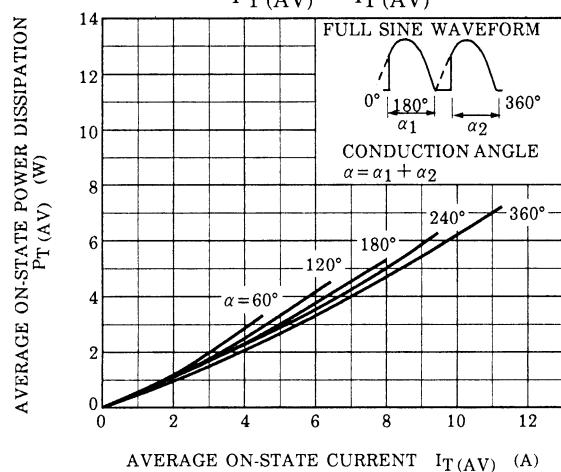
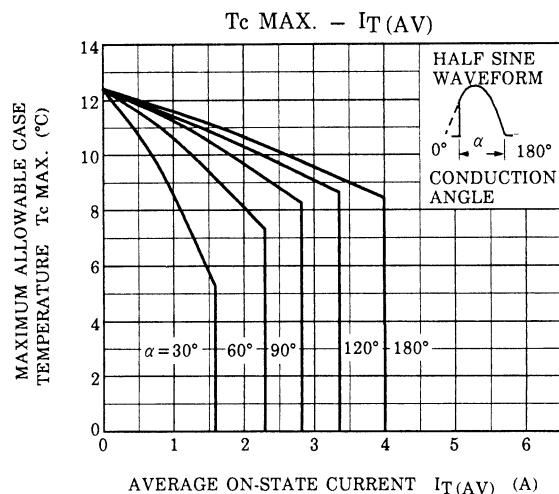
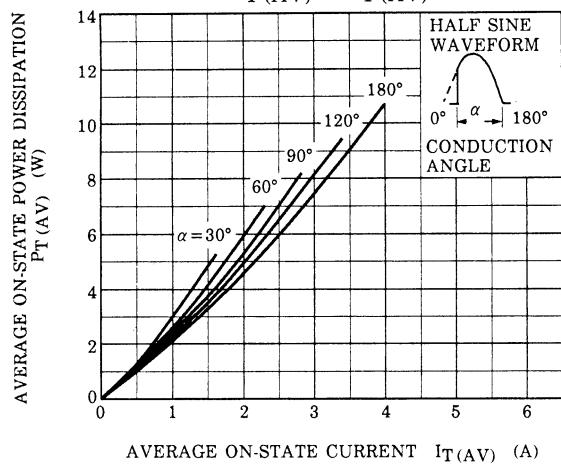
MAXIMUM RATINGS (Ta=25°C)

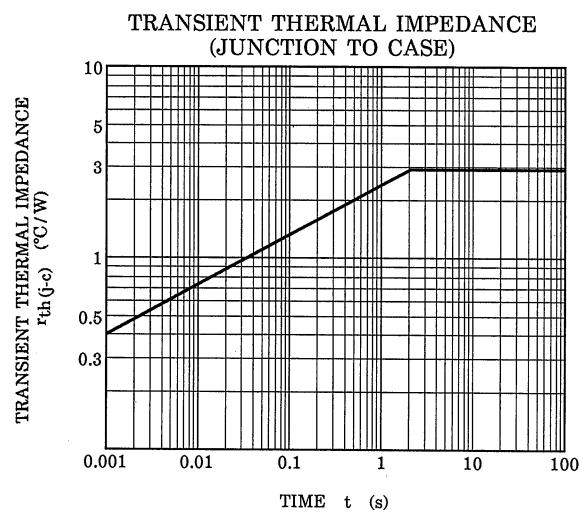
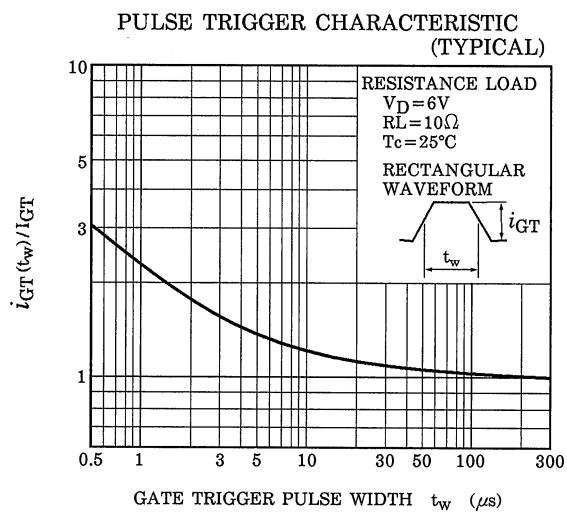
CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF8G48	V_{DRM} V_{RRM}	400	V
	USF8G48			
	SF8J48		600	
	USF8J48			
Non-Repetitive Peak Reverse Voltage (Non-Repetitive<5ms $T_j=0\sim125^\circ C$	SF8G48	V_{RSM}	500	V
	USF8G48			
	SF8J48		720	
	USF8J48			
Average On-State Current	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	I^2t	72	A^2s	
Critical Rate of Rise of On-State Current (Note 1)	di/dt	100	$A/\mu s$	
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	$^\circ C$	
Storage Temperature Range	T_{stg}	-40~125	$^\circ C$	

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse	I_{DRM} I_{RRM}	$V_{DRM}=V_{RRM}=\text{Rated}$	—	—	10	μA
Peak On-State Voltage	V_{TM}	$I_{TM}=25A$	—	—	1.5	V
Gate Trigger Voltage	V_{GT}	$V_D=6V, R_L=10\Omega$	—	—	1.0	V
Gate Trigger Current	I_{GT}		—	—	10	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated} \times 2/3, T_c=125^\circ C$	0.2	—	—	V
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DRM}=\text{Rated}, T_c=125^\circ C$ Exponential Rise	—	50	—	$V/\mu s$
Holding Current	I_H	$V_D=6V, I_{TM}=1A$	—	—	40	mA
Latching Current	I_L	$V_D=6V, f=50Hz$ $t_{gw}=50\mu s, i_G=30mA$	—	—	50	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case, DC	—	—	2.8	$^\circ C/W$







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000707EAA

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