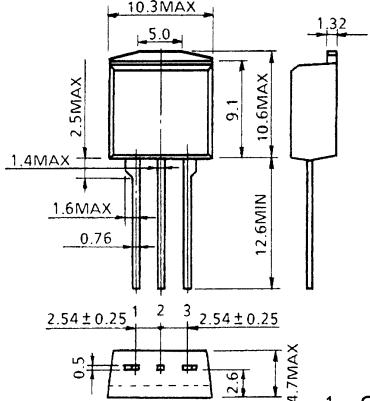
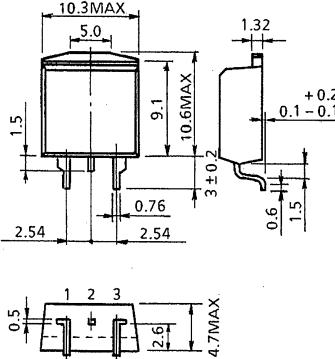


SF8G48, SF8J48, USF8G48, USF8J48

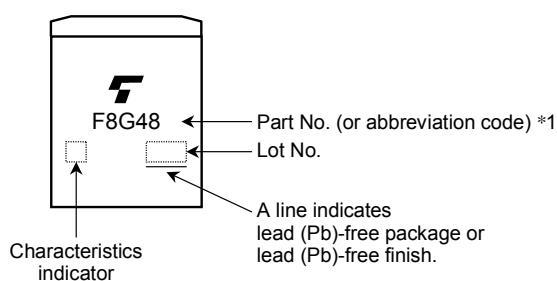
MEDIUM POWER CONTROL APPLICATIONS

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

		Unit: mm
SF8G48, SF8J48		USF8G48, USF8J48
		
1. CATHODE 2. ANODE 3. GATE	1. CATHODE 2. ANODE (BACK SIDE) 3. GATE	
JEDEC	JEDEC	—
JEITA	JEITA	—
TOSHIBA	13-10J1B	TOSHIBA
		13-10J2B

Weight: 1.7g

MARKING



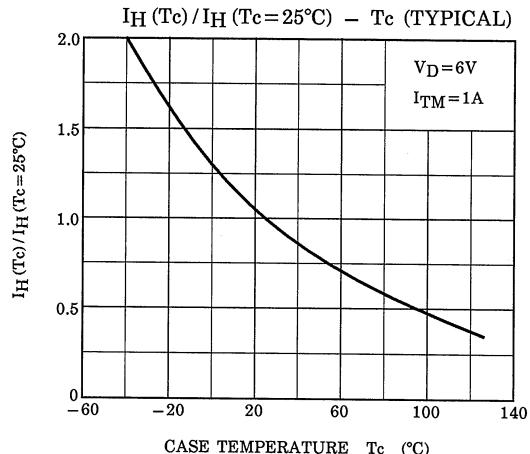
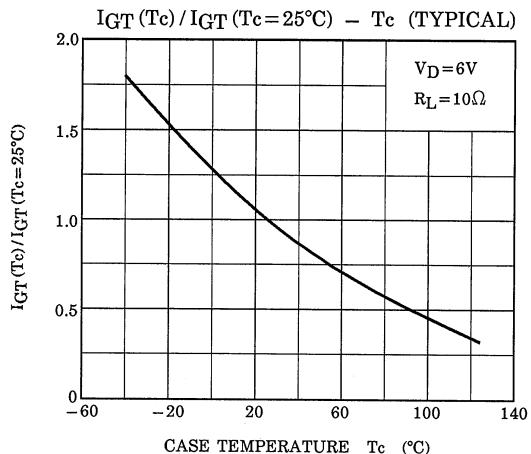
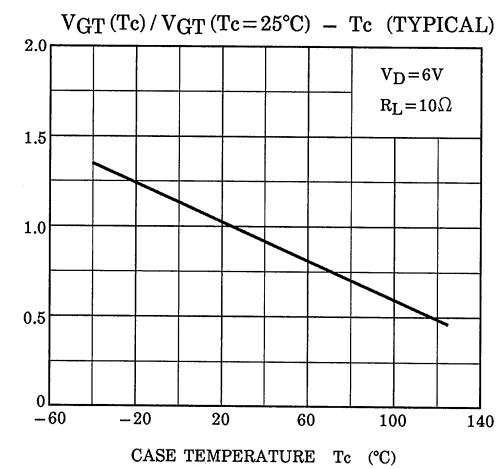
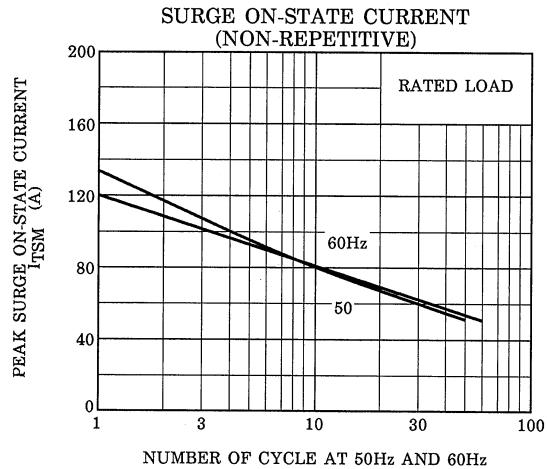
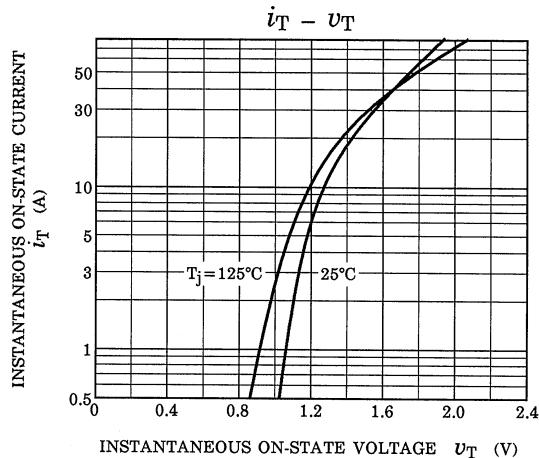
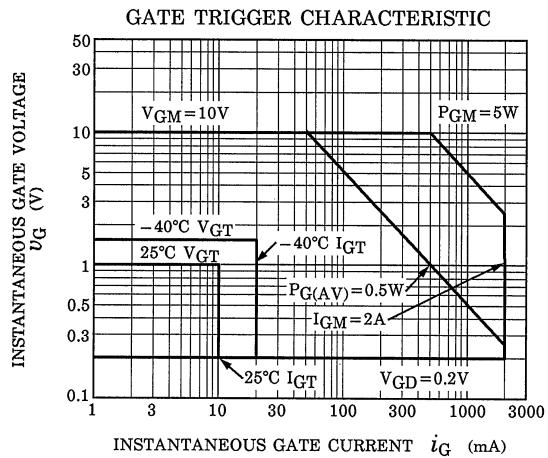
*1	Part No. (or abbreviation code)	Part No.
	F8G48	SF8G48, USF8G48
F8J48		SF8J48, USF8J48

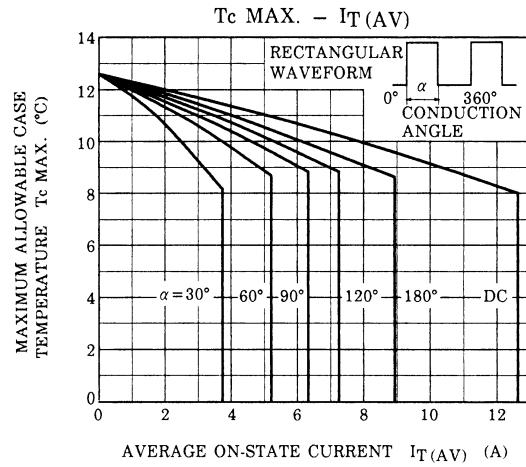
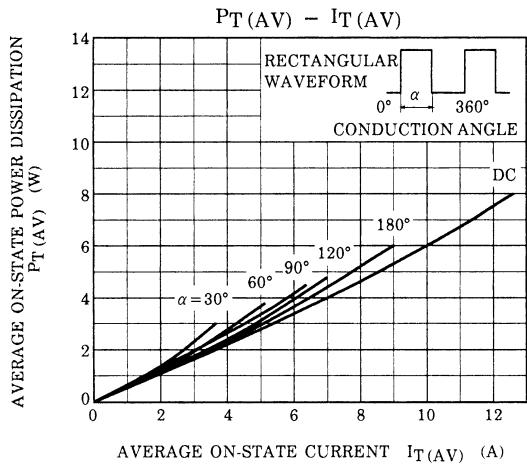
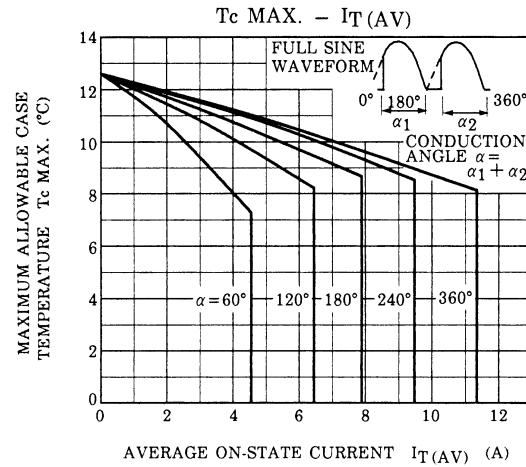
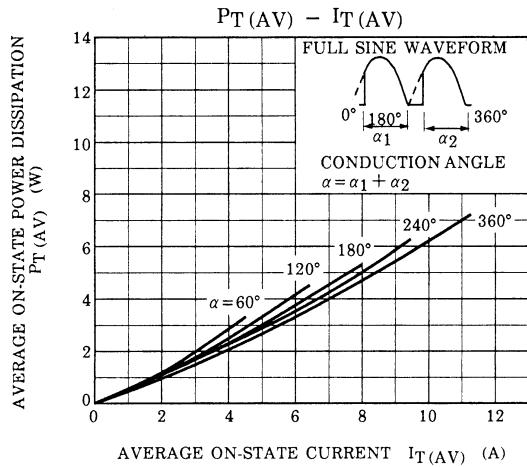
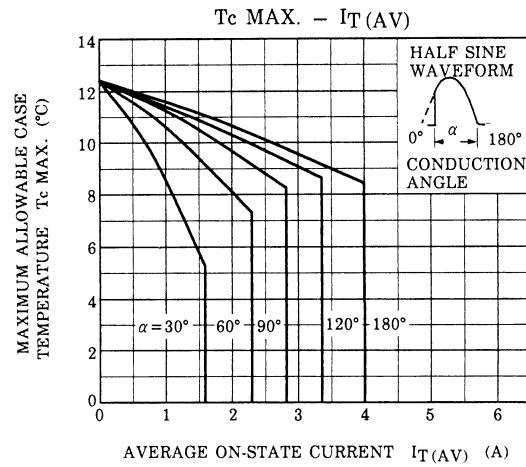
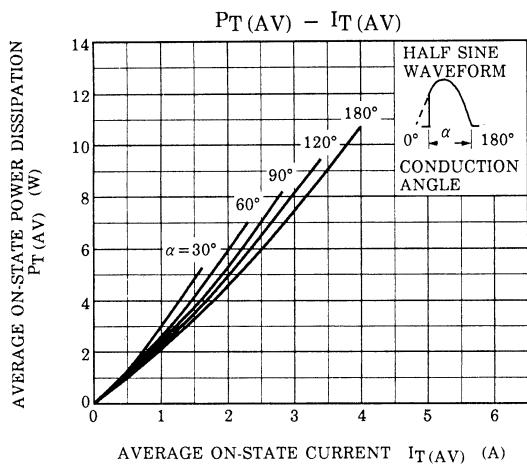
MAXIMUM RATINGS (Ta=25°C)

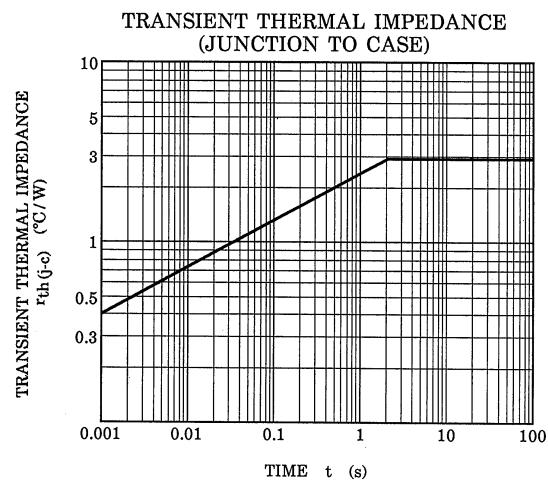
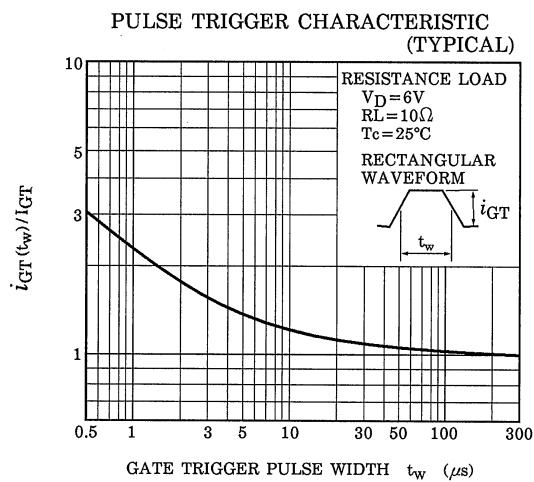
CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF8G48	400	V
	USF8G48		
	SF8J48	600	
	USF8J48		
Non-Repetitive Peak Reverse Voltage (Non-Repetitive<5ms T _j =0~125°C)	SF8G48	500	V
	USF8G48		
	SF8J48	720	
	USF8J48		
Average On-State Current	I _T (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 ² t Limit Value	I ² t	72	A ² s
Critical Rate of Rise of On-State Current (Note 1)	di /dt	100	A / μs
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	°C
Storage Temperature Range	T _{stg}	-40~125	°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} =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 =10Ω	—	—	1.0	V
Gate Trigger Current	I _{GT}		—	—	10	mA
Gate Non-Trigger Voltage	V _{GD}	V _D =Rated×2 / 3, T _c =125°C	0.2	—	—	V
Critical Rate of Rise of Off-State Voltage	dv / dt	V _{DRM} =Rated, T _c =125°C Exponential Rise	—	50	—	V / μs
Holding Current	I _H	V _D =6V, I _{TM} =1A	—	—	40	mA
Latching Current	I _L	V _D =6V, f=50Hz t _{gw} =50μs, i _G =30mA	—	—	50	mA
Thermal Resistance	R _{th} (j-c)	Junction to Case, DC	—	—	2.8	°C / W







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