



KERSEMI

SF25GZ51, SF25JZ51

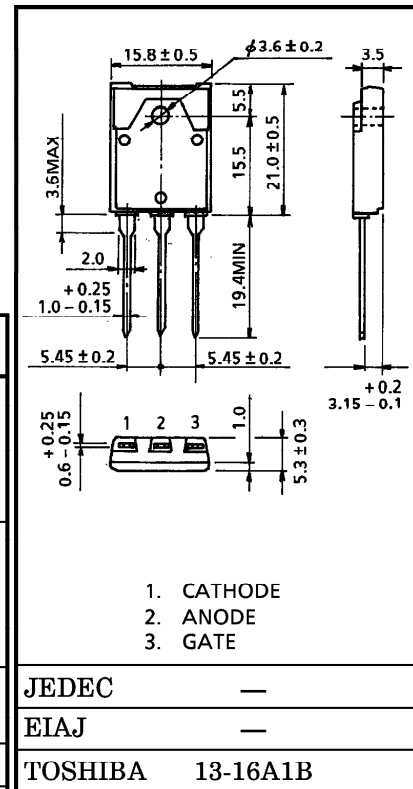
MEDIUM POWER CONTROL APPLICATIONS.

Unit in mm

- Repetitive Peak Off-State Voltage : V_{DRM}
 Repetitive Peak Reverse Voltage : V_{RRM} } = 400, 600V
- Average On-State Current : $I_{T(AV)} = 25A$
- Isolation Voltage : $V_{Isol} = 1500V AC$

MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF25GZ51	V_{DRM} V_{RRM}	400	V
	SF25JZ51		600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j = 0 \sim 125^\circ C$)	SF25GZ51	V_{RSM}	500	V
	SF25JZ51		720	
Average On-State Current (Half Sine Waveform)		$I_{T(AV)}$	25	A
R.M.S On-State Current		$I_{T(RMS)}$	39	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	350 (50Hz)	A
			385 (60Hz)	
I ² t Limit Value (t = 1~10ms)		I ² t	612	A ² s
Critical Rate of Rise of On-State Current (Note)		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}	-40~150	°C
Isolation Voltage (AC, t = 1min.)		V _{Isol}	1500	V



Weight : 5.9g

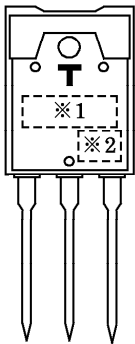
Note : di / dt Test Condition, $i_G = 30mA$, $t_{gw} = 10\mu s$, $t_{gr} \leq 250ns$

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

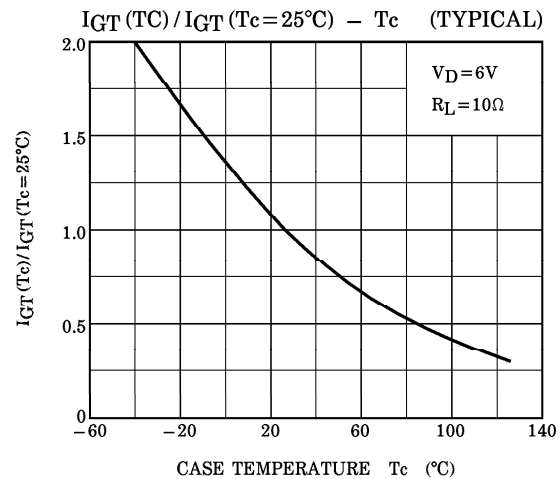
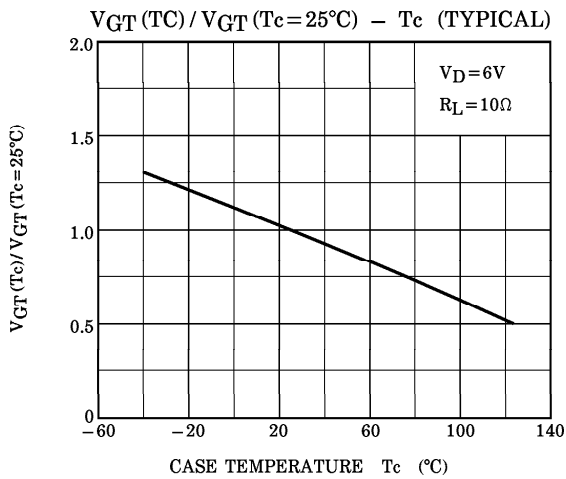
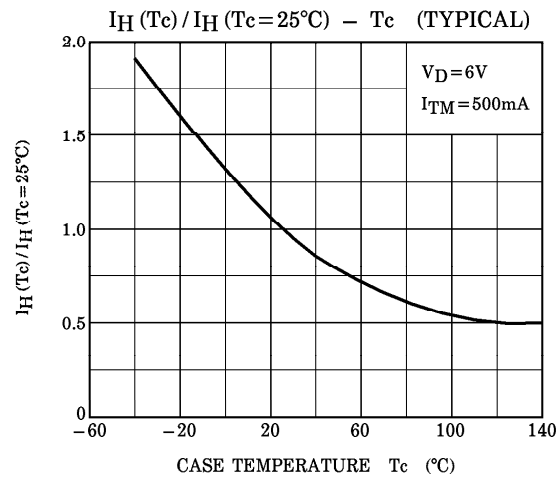
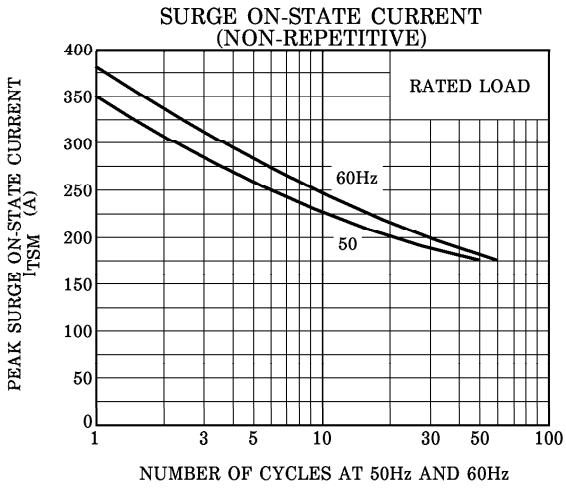
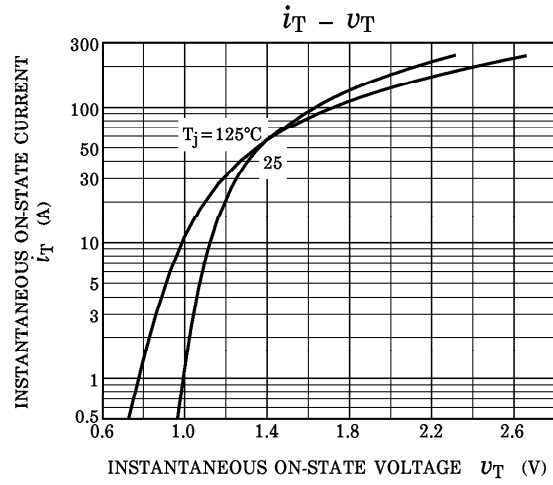
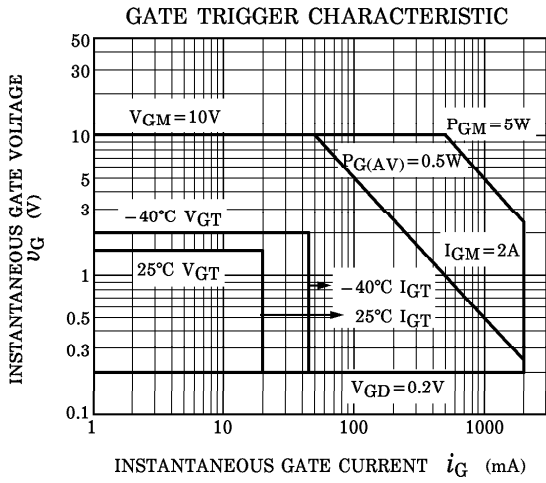
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{DRM} = V_{RRM} = \text{Rated}$	—	—	20	μA
Peak On-State Voltage	V_{TM}	$I_{TM} = 80\text{A}$	—	—	1.5	V
Gate Trigger Voltage	V_{GT}	$V_D = 6\text{V}, R_L = 10\Omega$	—	—	1.5	V
Gate Trigger Current	I_{GT}		—	—	20	mA
Holding Current	I_H	$V_D = 6\text{V}, I_{TM} = 500\text{mA}$	—	—	100	mA
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DRM} = \text{Rated}, T_c = 125^\circ\text{C}$ Exponential Rise	—	50	—	$\text{V} / \mu\text{s}$
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	—	—	1.3	$^\circ\text{C} / \text{W}$

MARK

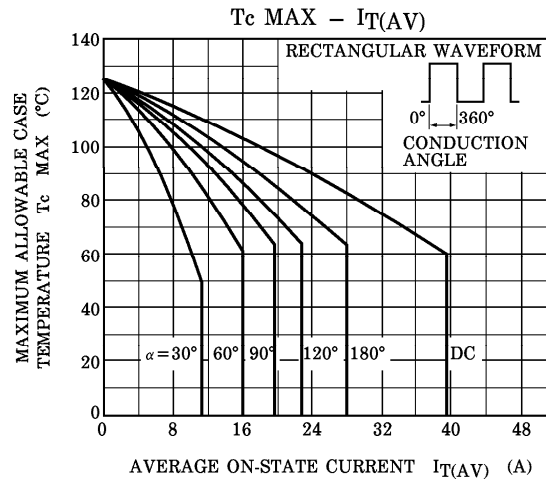
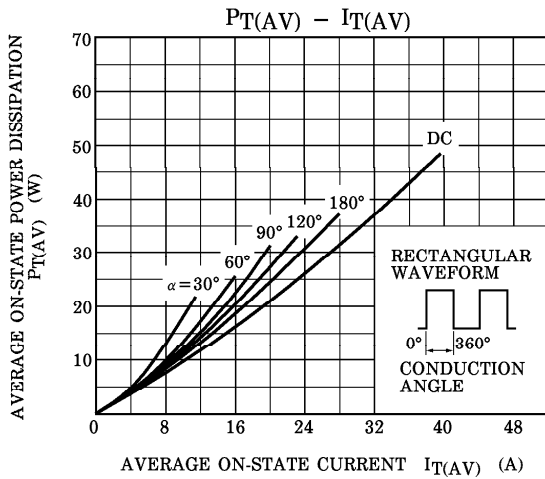
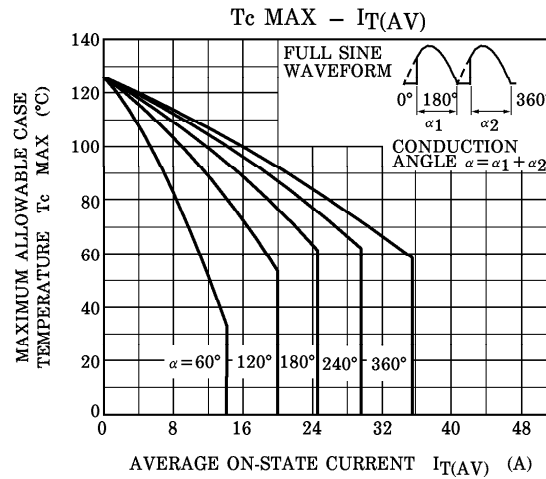
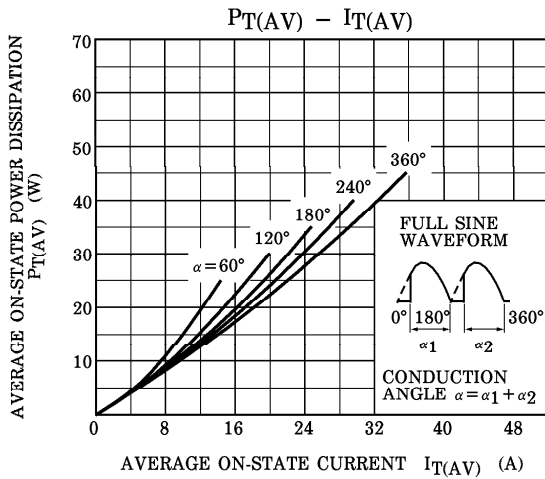
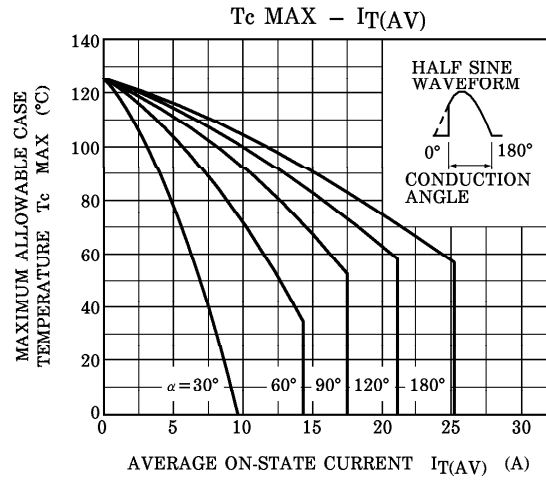
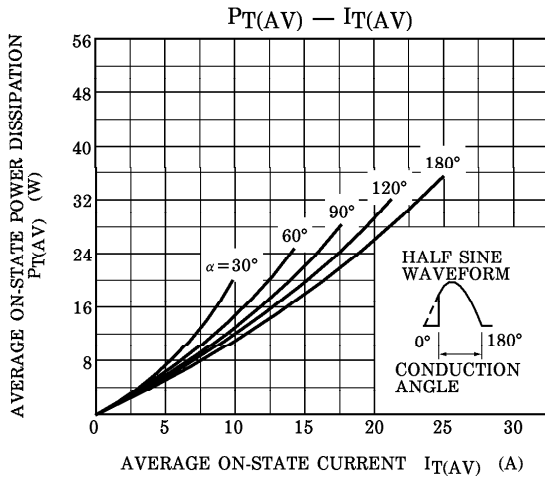


NUMBER	SYMBOL		MARK
※1	TYPE	SF25GZ51	F25GZ51
		SF25JZ51	F25JZ51
※2	Lot Number Month (Starting from Alphabet A) Year (Last Number of the Christian Era)		Example 2A : January 1992 2B : February 1992 2L : December 1992

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