ShinDengen

KC8SF80

Thyristors
800V, 8A

Feature

- Full Molded
- High Voltage
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): FTO-220AG
Package (JEITA Code): SC-91

Equivalent circuit

Absolute Maximum Ratings (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	T_{stg}		-55 to 150	℃
Junction temperature	Tj		-40 to 150	℃
Repetitive peak off-state voltage	V_{DRM}	AC, RGK=1KΩ	800	V
Repetitive peak reverse voltage	V_{RRM}	AC, RGK=1KΩ	800	V
Average on-state Current	I_T(AV)	Tc=130℃, 50Hz sine wave, θ=180°	8	A
Peak surge on-state current	I_{TSM}	Tj=25℃, 50Hz sine wave, Non-repetitive 1 cycle peak value	120	A
Current squared time	I^2t	Tj=25℃, t=10ms, Non-repetitive	72	A^2s
Peak gate dissipation	P_{FGM}	f≧50Hz, Duty≦10%	5	W
Average gate dissipation	P_{FG}(AV)		0.5	W
Peak gate forward current	I_{FGM}	f=50Hz, Duty≦10%	2	A
Peak gate forward voltage	V_{FGM}		10	
Peak gate reverse voltage	V_{RGM}	f≧50Hz, Duty≦10%	5	V
Critical rate of rise of on-state current	di/dt		50	A/μs
Dielectric strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque：0.3N･m)	0.5	N･m

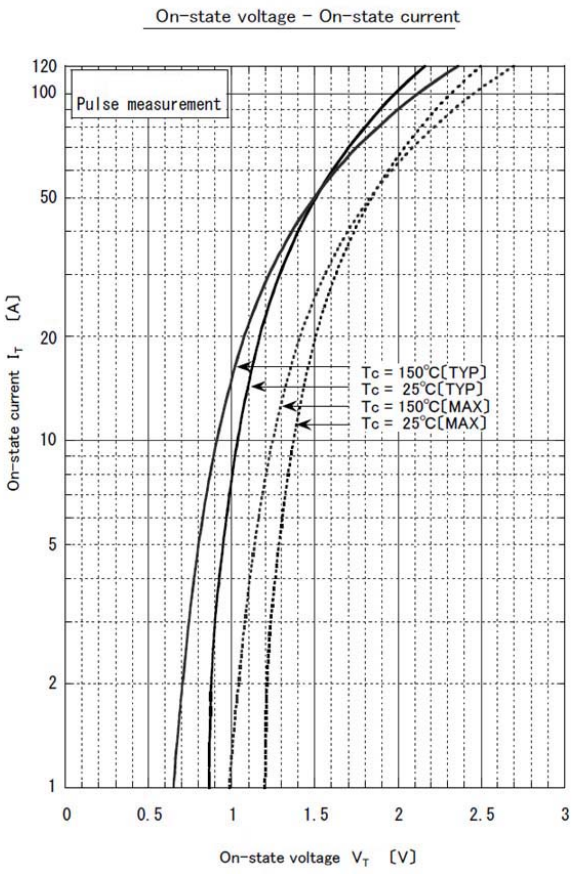
※ ：See the original Specifications

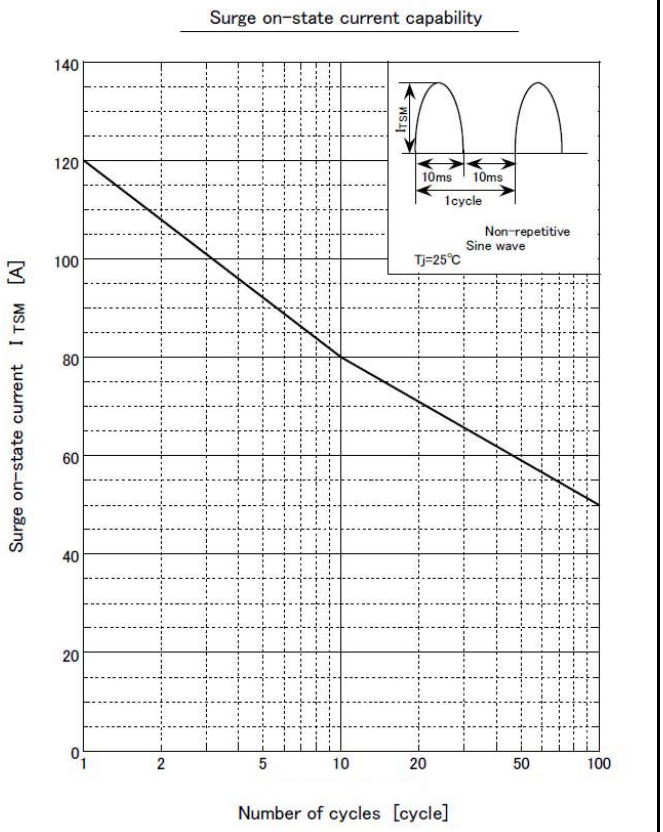
Electrical Characteristics (unless otherwise specified : Tc=25°C)

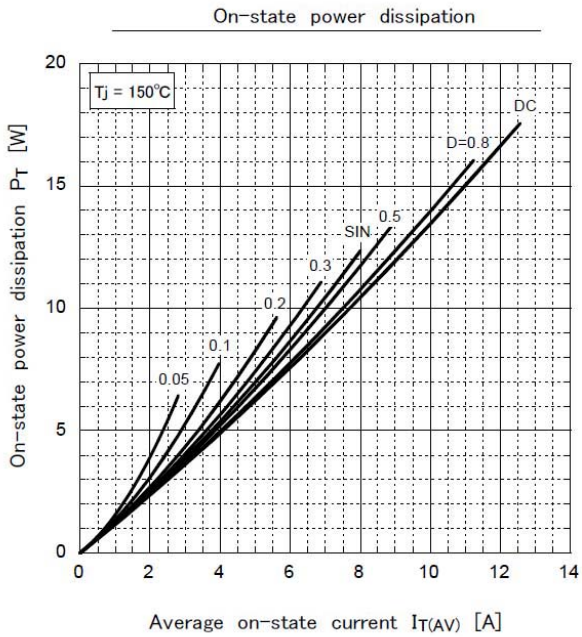
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Repetitive off-state current	I_{DRM}	VD=800V, RGK=1kΩ, Pulse measurement			100	μA
Repetitive reverse current	I_{RRM}	VR=800V, RGK=1kΩ, Pulse measurement			100	μA
On-state voltage	V_{TM}	ITM=20A, Pulse measurement			1.5	V
Gate trigger voltage	V_{GT}	VD=6V, RL=100Ω			1	V
Gate trigger current	I_{GT}	VD=6V, RL=100Ω			15000	μA
Gate non-trigger voltage	V_{GD}	Tj=150°C, VD=1/2VDRM, RGK=1kΩ	0.2			V
Holding Current	I_H	IT=100mA, RGK=1kΩ			100	mA
Critical rate of rise of off-state voltage	dVD/dt	Tj=150°C, VD=2/3×VDRM, RGK=1kΩ		420		V/μs
Thermal Resistance	Rth(j-c)	Junction to case, With heatsink			1.49	°C/W

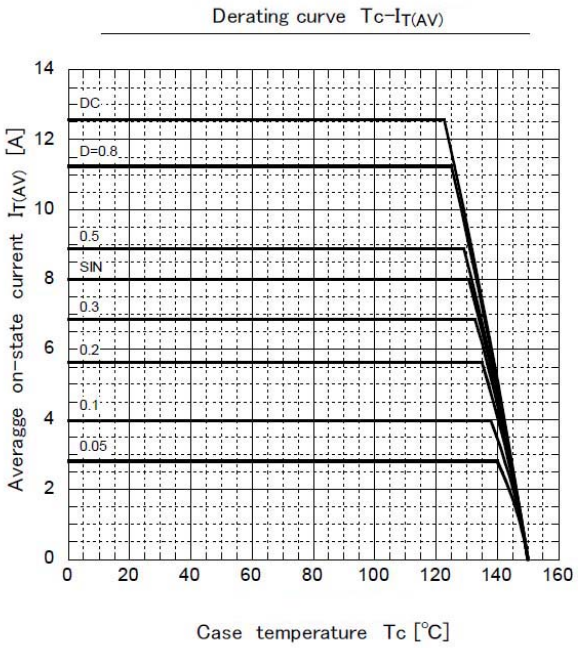
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

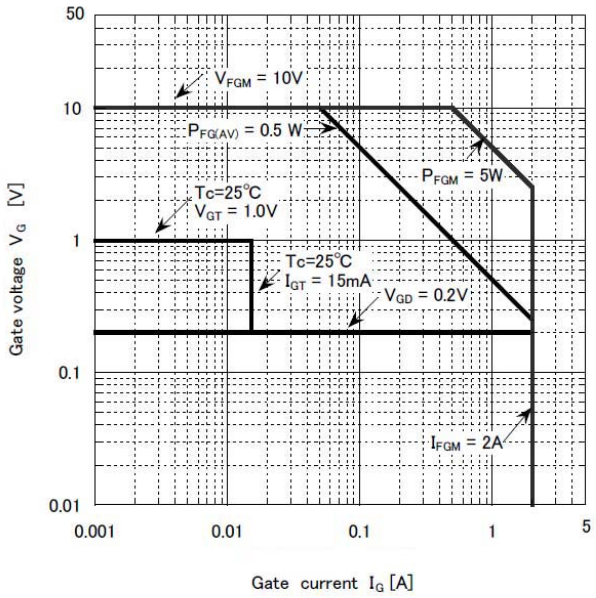




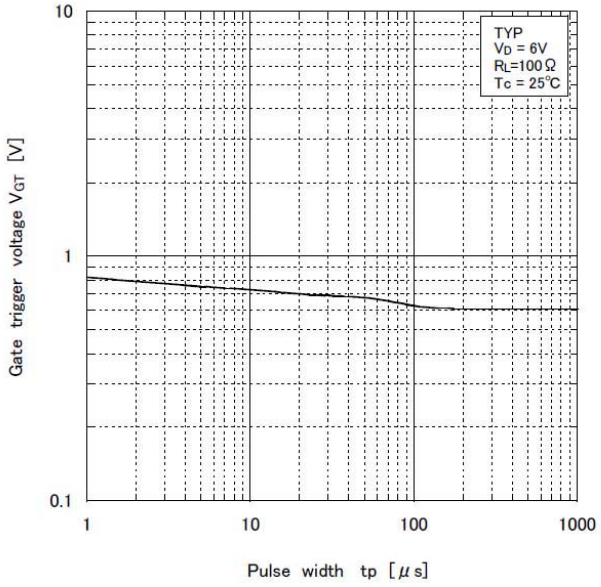




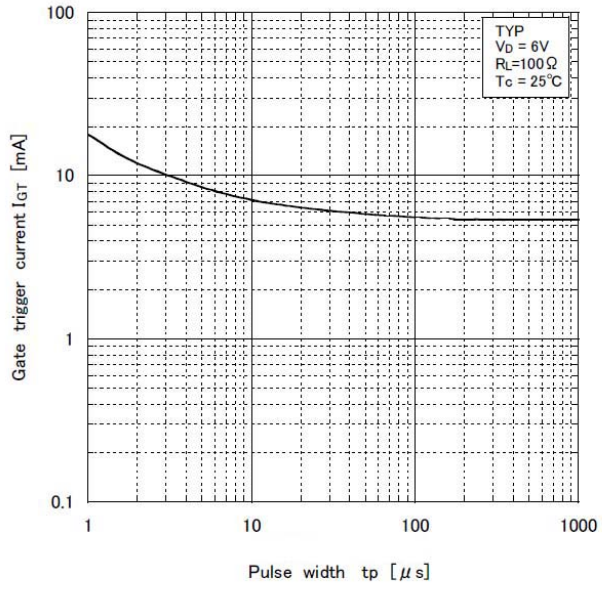
Gate characteristic



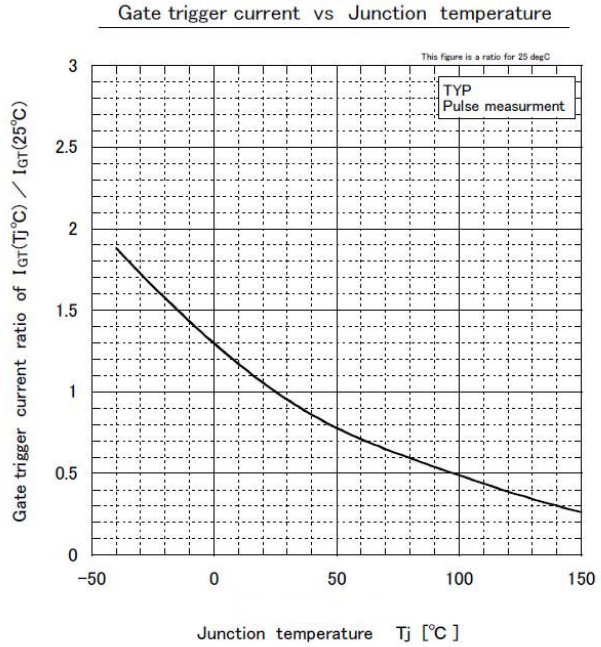
Gate trigger voltage vs Pulse width



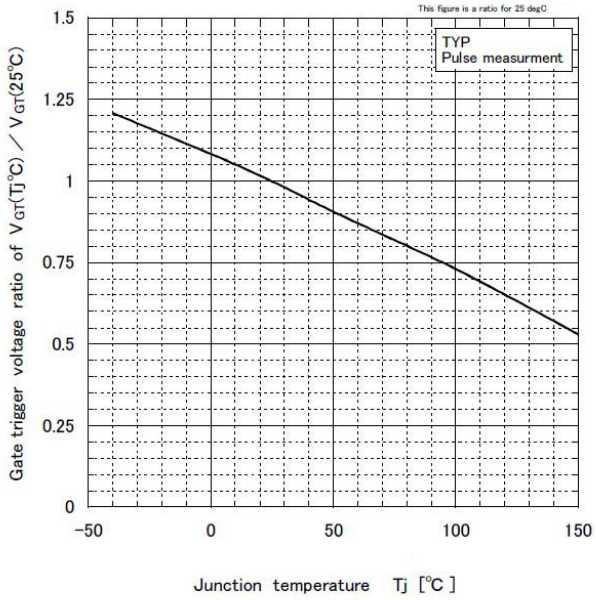
Gate trigger current vs Pulse width



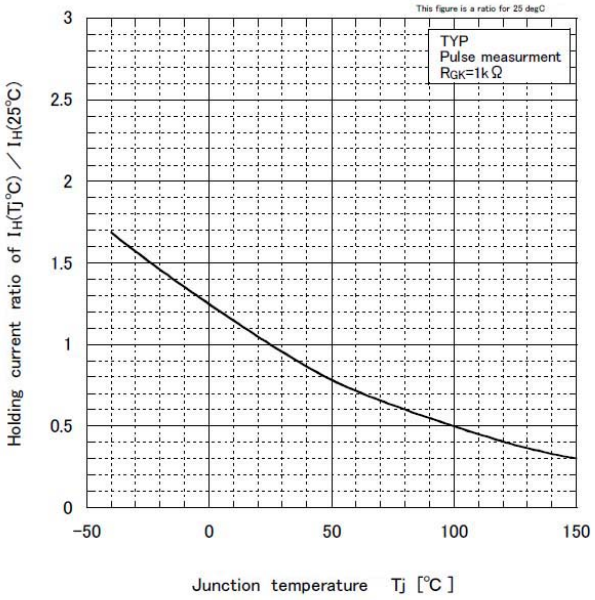
Gate trigger current vs Junction temperature

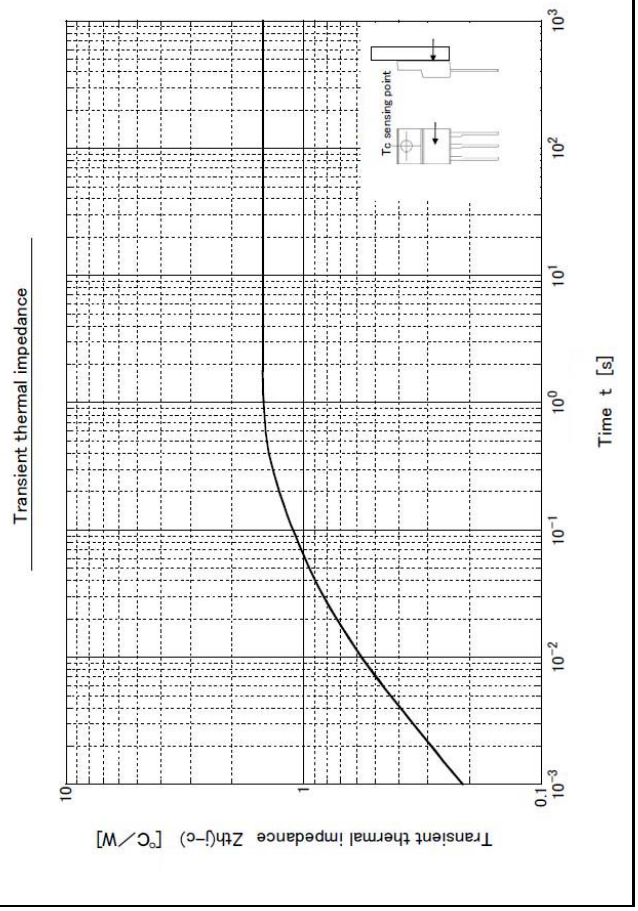


Gate trigger voltage vs Junction temperature



Holding current vs Junction temperature



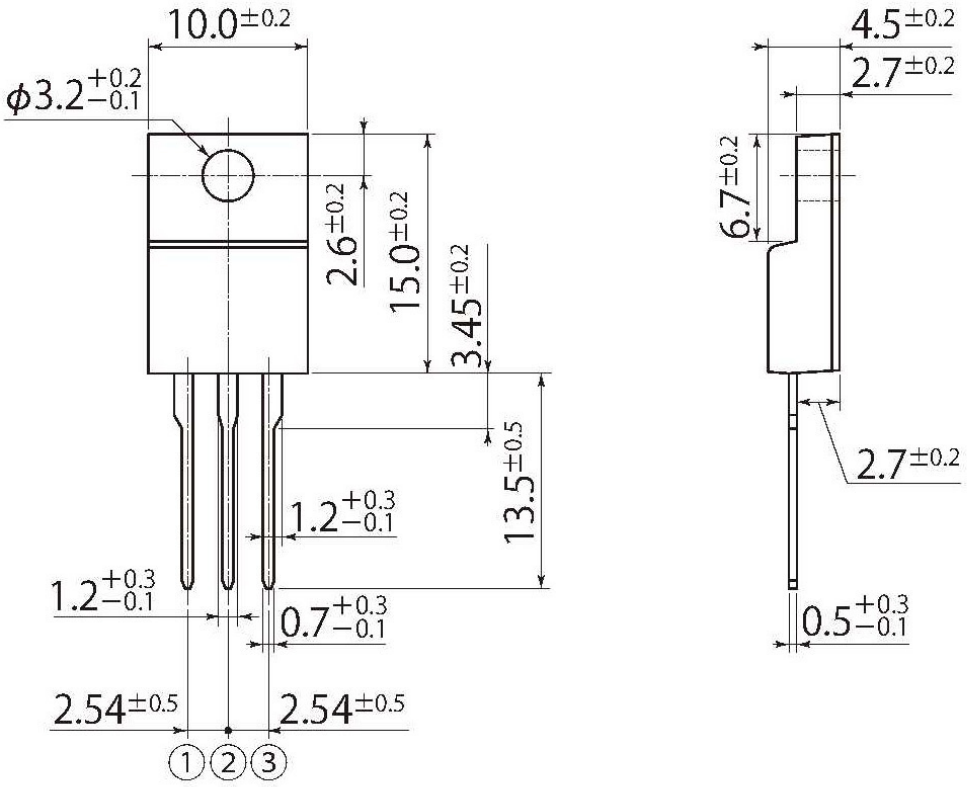


Outline Dimensions

unit:mm

J8

JEDEC Code	–
JEITA Code	SC-91
House Name	FTO-220AG(3pin)



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