

KC5SF60HRT

Thyristors
600V, 5A

Feature

- Full Molded
- High Voltage
- High Sensitivity
- Tj=150°C
- Suitable for an Inrush Current Protection Circuit
- 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°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-40 to 150	°C
Repetitive peak off-state voltage	V _{DRM}	RGK=220Ω	600	V
Repetitive peak reverse voltage	V _{RRM}	(not guaranteed)	-	V
Average on-state Current	I _{T(AV)}	Tc=127°C, 50Hz sine wave, θ=180°, with heatsink	5	A
Peak surge on-state current	I _{TSM}	Tj=25°C, 50Hz sine wave, Non repetitive	82	A
Current squared time	I ² t	Tj=25°C, tp=10ms, Non repetitive	33.6	A ² s
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 reverse voltage	V _{RGM}	f≥50Hz, Duty≤10%	6	V
Critical rate of rise of on-state current	di/dt		50	A/μs
Dielectric strength	V _{dis}	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque : 0.3N・m)	0.5	N・m

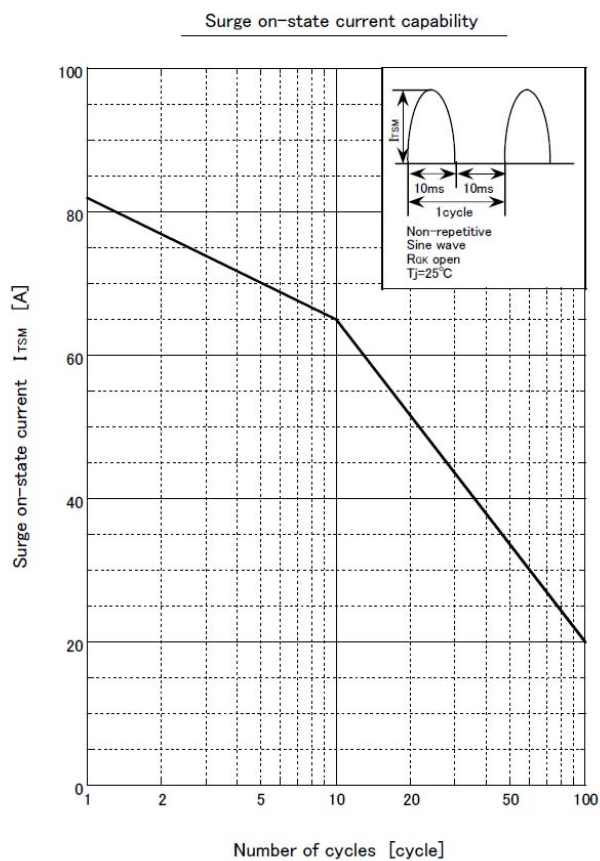
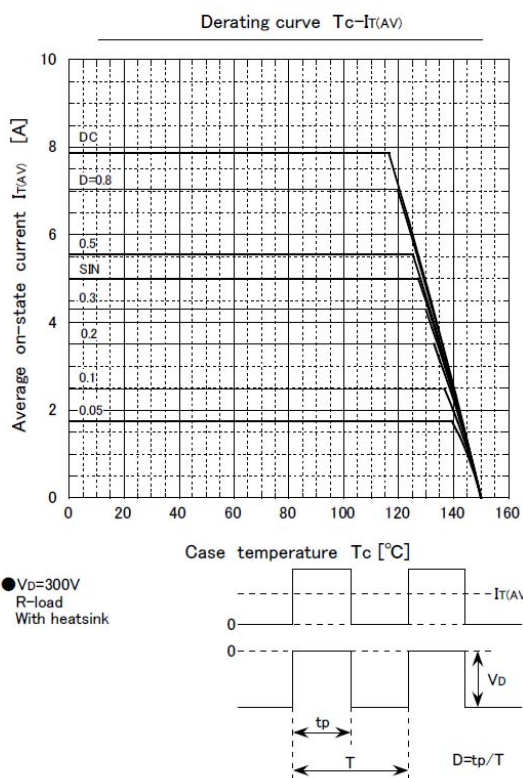
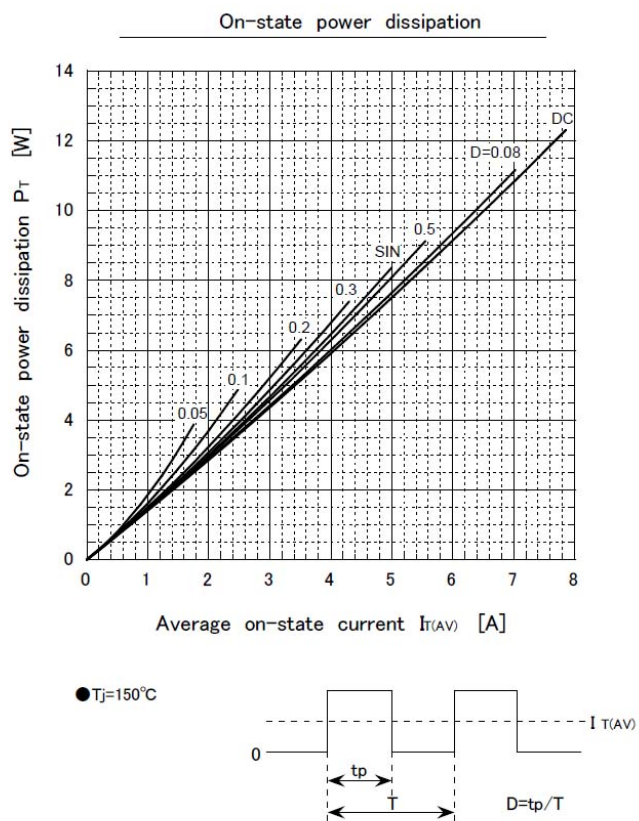
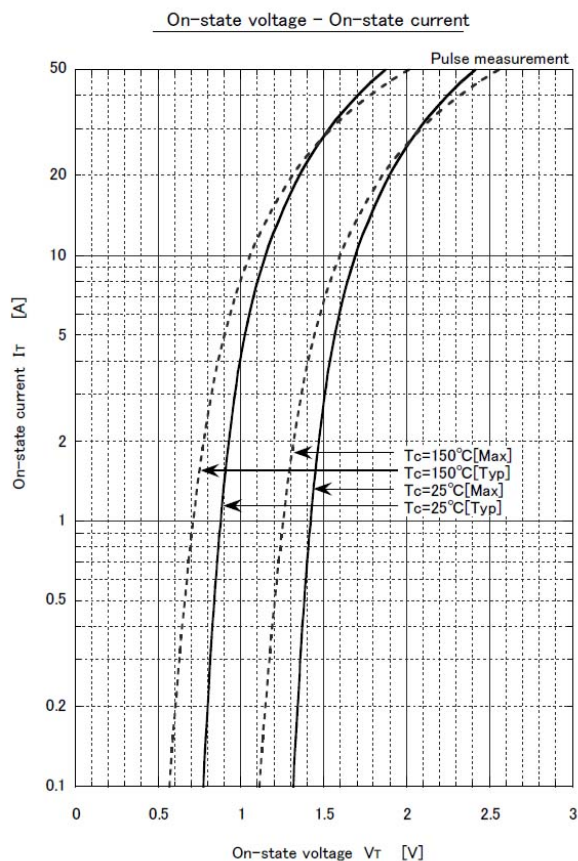
※ : See the original Specifications

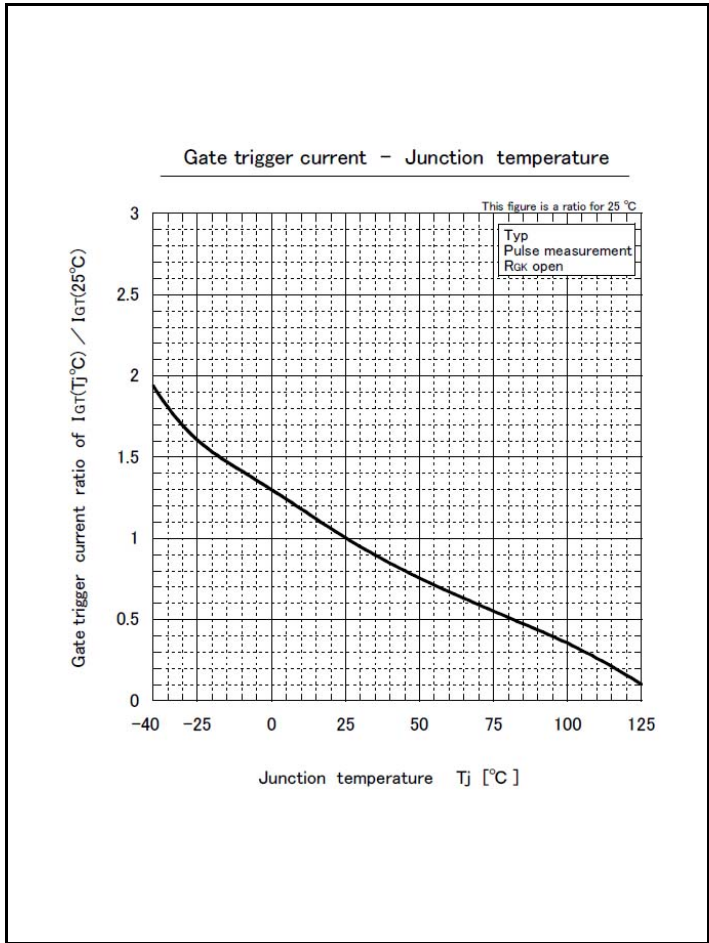
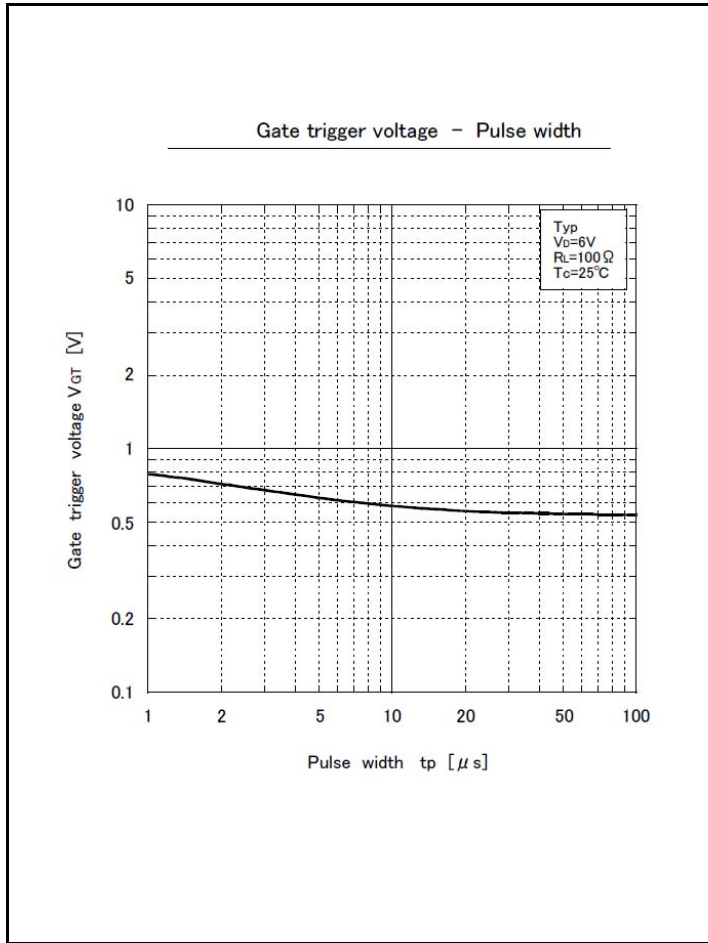
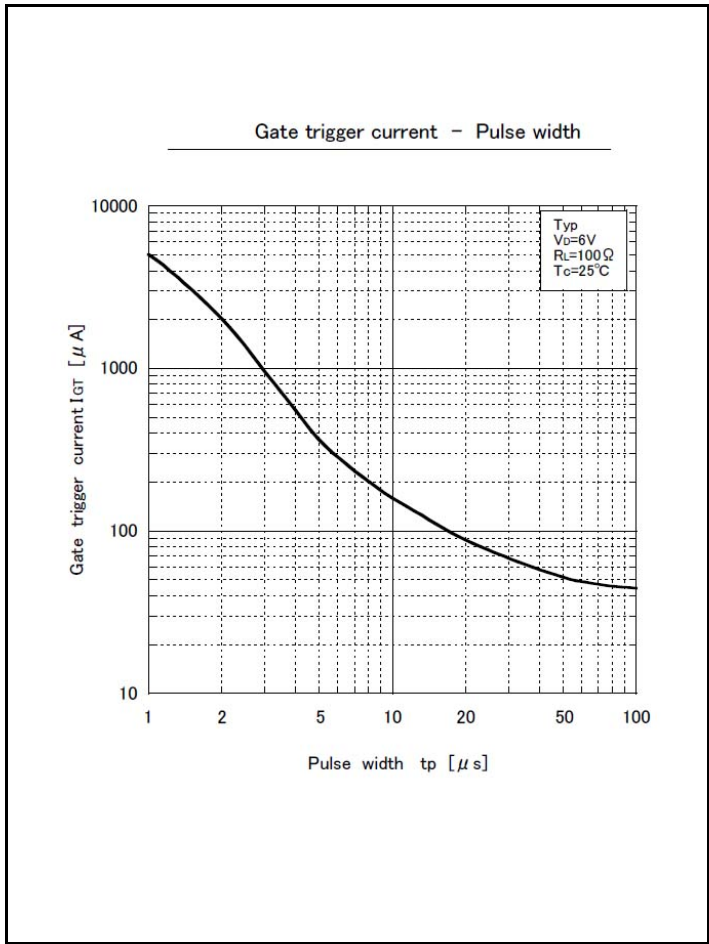
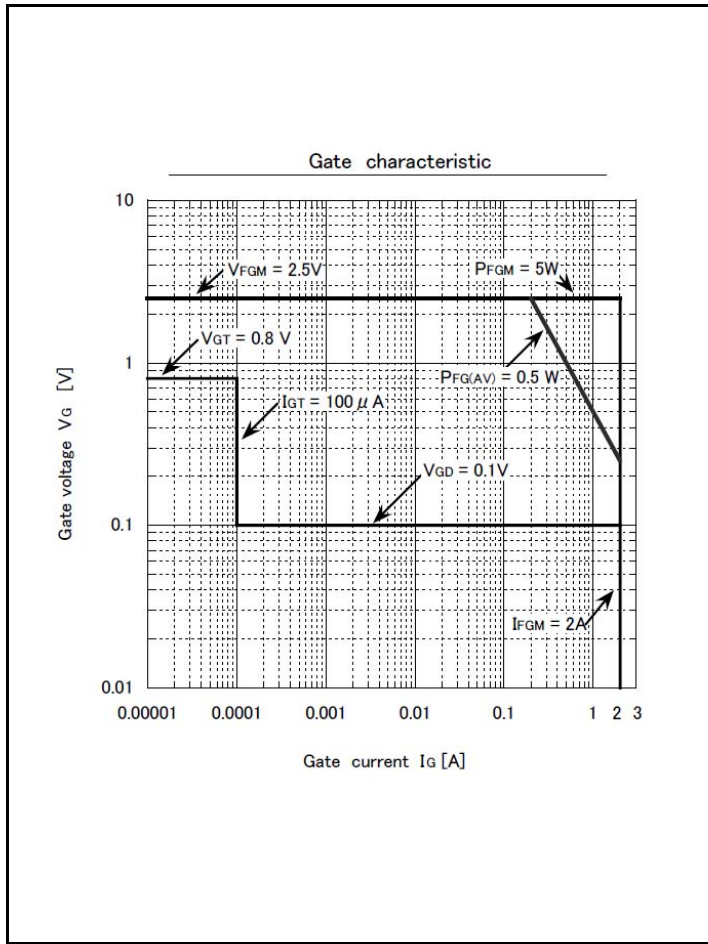
Electrical Characteristics (unless otherwise specified : T_c=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Repetitive off-state current	I _{DRM}	VD=600V, RGK=220Ω, Pulse measurement			10	μA
On-state voltage	V _{TM}	ITM=15A, Pulse measurement			1.8	V
Gate trigger voltage	V _{GT}	VD=6V, RL=100Ω			0.8	V
Gate trigger current	I _{GT}	VD=6V, RL=100Ω			100	μA
Gate non-trigger voltage	V _{GD}	T _j =150°C, VD=1/2V _{DRM} , RGK=220Ω	0.1			V
Holding Current	I _H	IT=0.1A, RGK=220Ω			5	mA
Thermal Resistance	R _{th(j-c)}	Junction to case, With heatsink			2.73	°C/W

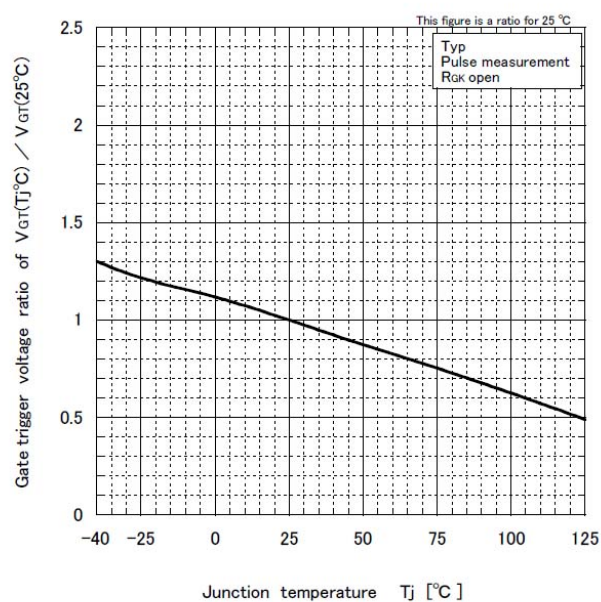
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

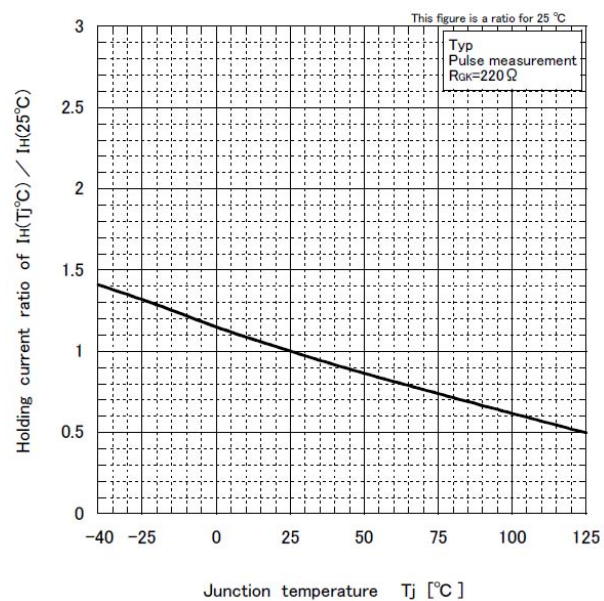




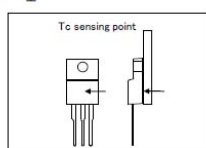
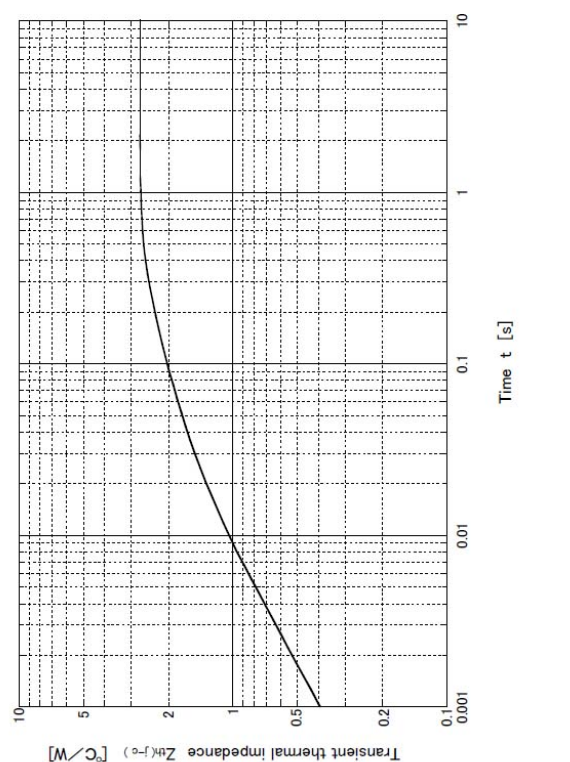
Gate trigger voltage - Junction temperature



Holding current - Junction temperature

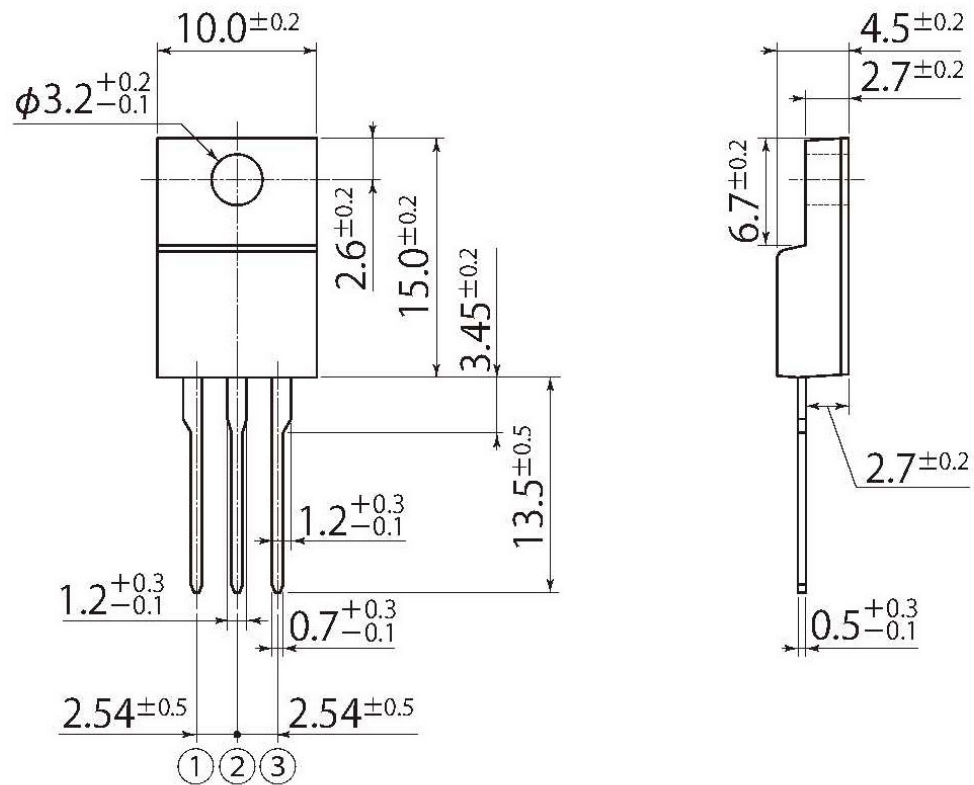


Transient thermal impedance



J8

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



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