ShinDengen

KD8SF60S

TRIACs
600V, 8A

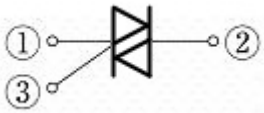
Feature

- Full molded
- High voltage
- Tj=150℃
- Stable surge-on current capability
- 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	Tstg		-55 to 150	℃
Junction temperature	Tj		-40 to 150	℃
Repetitive peak off-state voltage	V_{DRM}		600	V
Non-repetitive peak off-state voltage	V_{DSM}		720	V
R.M.S. on-state current	$I_{T(RMS)}$	Tc=125℃, commercial frequency, sine wave, θ=360℃	8	A
Surge on-state current	I_{TSM}	Tj=25℃, 60Hz sine wave, Non-repetive Conductionangleθ=360°	50	A
Current squared time	I^2t	Tj=25℃, t=8.33ms, Non-repetitive	10.4	A^2S
Critical rate of rise of on-state current	di/dt		50	A/μs
Peak gate dissipation	P_{GM}	f=60Hz, Duty≦10%	5	W
Average gate dissipation	$P_G(AV)$		0.5	W
Peak gate current	I_{GM}	f=60Hz, Duty≦10%	2	A
Peak gate voltage	V_{GM}	f=60Hz, Duty≦10%	10	V
Dielectric strength	Vdis	f=60Hz, Duty≦10%	2	kV
Mounting Torque	TOR	(Recommended torque:0.3N･m)	0.5	N･m

※ :See the original Specifications

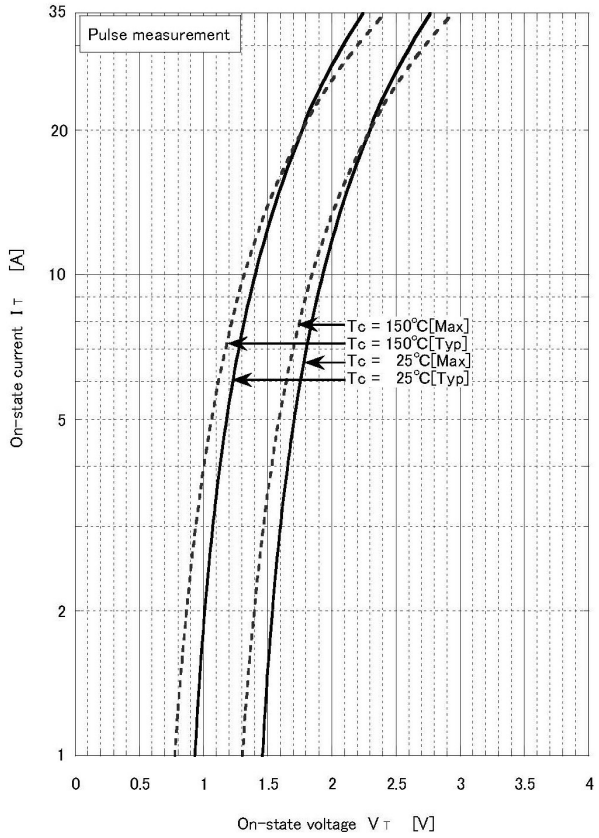
Electrical Characteristics (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Off-state current	I_{DRM}	VD=600V, Pulse measurement			10	μA
On-state voltage	V_{TM}	ITM=7A, Pulse measurement			1.8	V
Gate trigger voltage	V_{GTI}	VD=6V, RL=10Ω, T1-, T2+, G+			1.5	V
Gate trigger voltage	V_{GTII}	VD=6V, RL=10Ω, T1-, T2+, G-			1.5	V
Gate trigger voltage	V_{GTIII}	VD=6V, RL=10Ω, T1+, T2-, G-			1.5	V
Gate trigger voltage	V_{GTIV}	VD=6V, RL=10Ω, T1+, T2-, G+			- ※	V
Gate non-trigger voltage	V_{GD}	Tj=150℃, VD=1/2VDRM	0.1			V
Gate trigger current	I_{GTI}	VD=6V, RL=10Ω, T1-, T2+, G+			20	mA
Gate trigger current	I_{GTII}	VD=6V, RL=10Ω, T1-, T2+, G-			20	mA
Gate trigger current	I_{GTIII}	VD=6V, RL=10Ω, T1+, T2-, G-			20	mA
Gate trigger current	I_{GTIV}	VD=6V, RL=10Ω, T1+, T2-, G+			- ※	mA
Latching current	I_{LI}	IG=0.1A, T1-, T2+, G+			100	mA
Latching current	I_{LII}	IG=0.1A, T1-, T2+, G-			100	mA
Latching current	I_{LIII}	IG=0.1A, T1+, T2-, G-			100	mA
Latching current	I_{LIV}	IG=0.1A, T1+, T2-, G+			- ※	mA
Holding current	I_H	ITM=1A			100	mA
Critical rate of rise of off-state voltage	dv/dt	Tj=150℃,VD=2/3VDRM	100			V/μs
Critical rate of rise of commutating voltage	(dv/dt)c	Tj=150℃, VD=2/3VDRM, (di/dt)c=-2.5A/ms	1			V/μs
Thermal resistance	Rth(j-c)	Junction to case with heatsink			2.29	℃/W

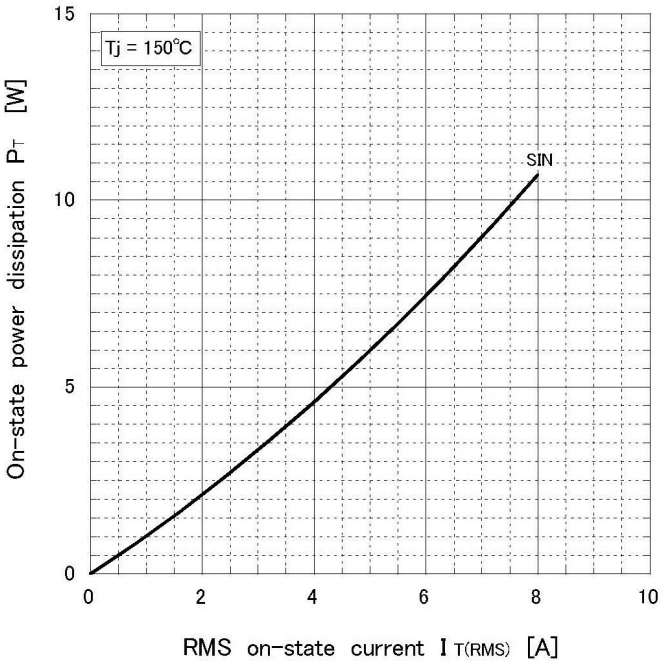
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

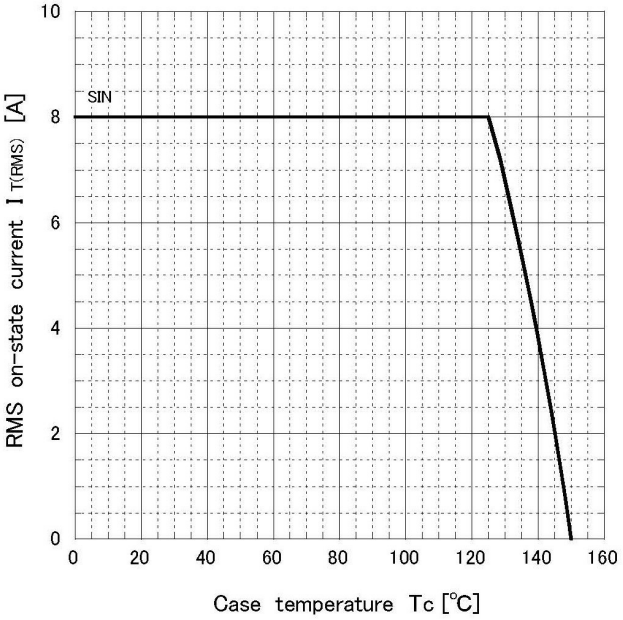
On-state voltage vs On-state current



On-state power dissipation

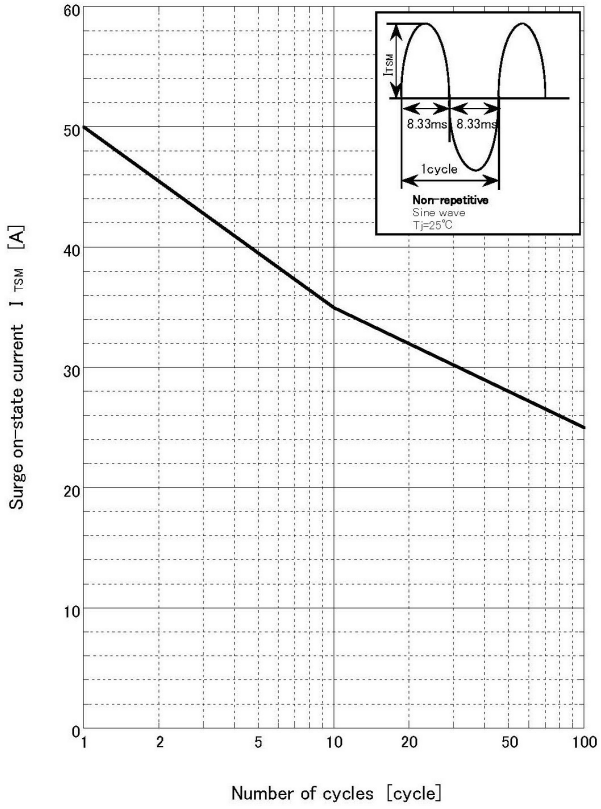


Derating curve Tc-I T(RMS)

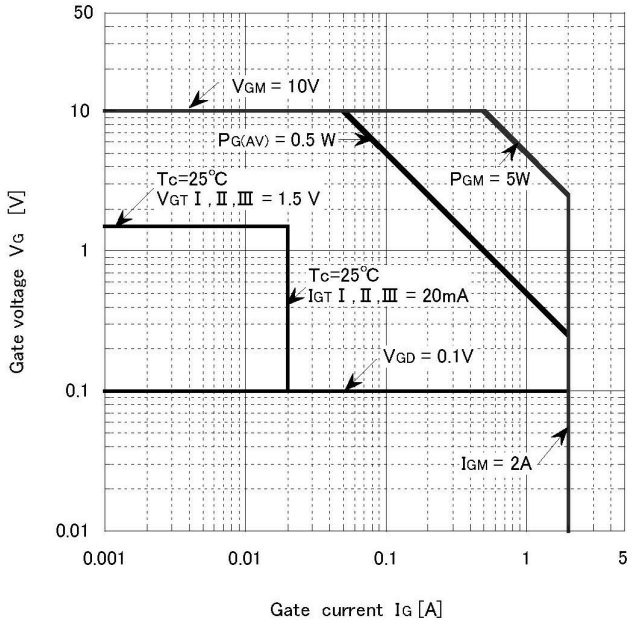


●With heatsink
Conduction angle θ=360°

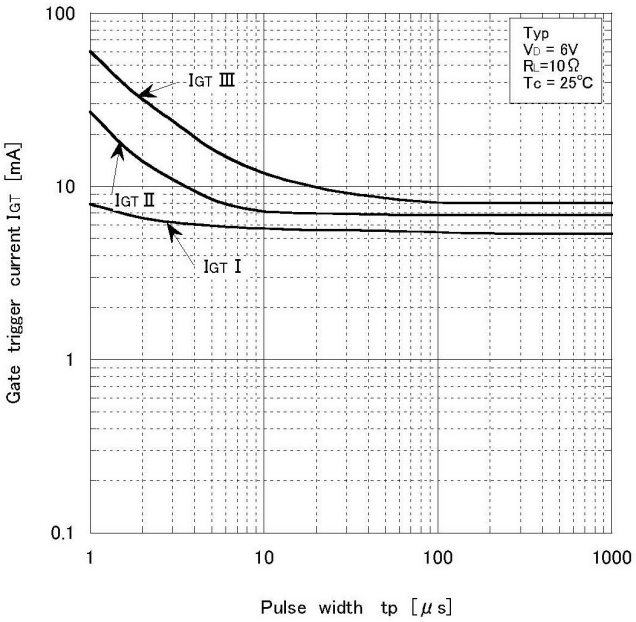
Surge on-state current capability



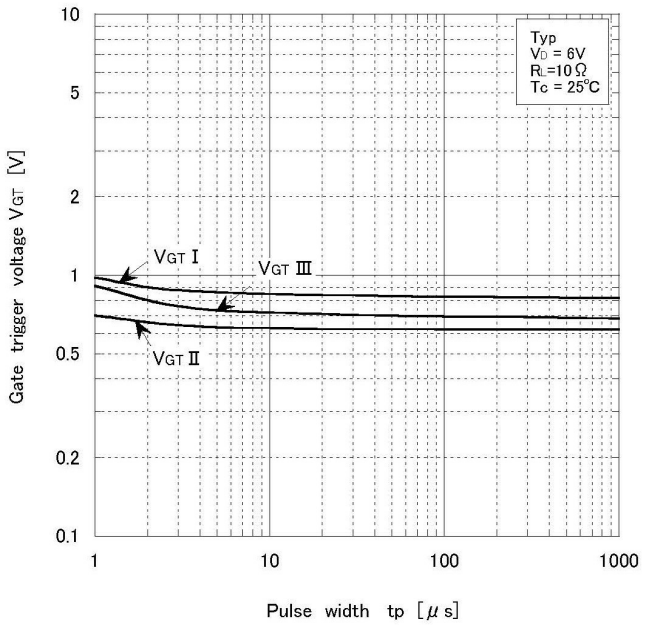
Gate characteristic



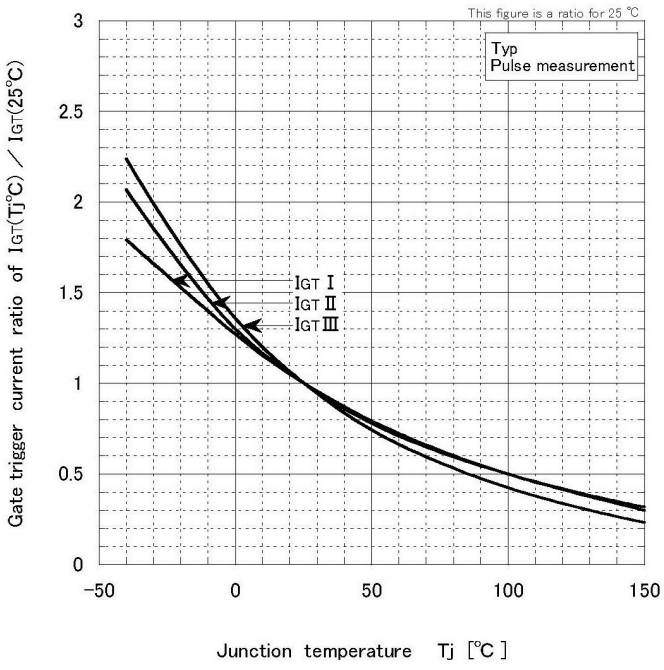
Gate trigger current – Pulse width



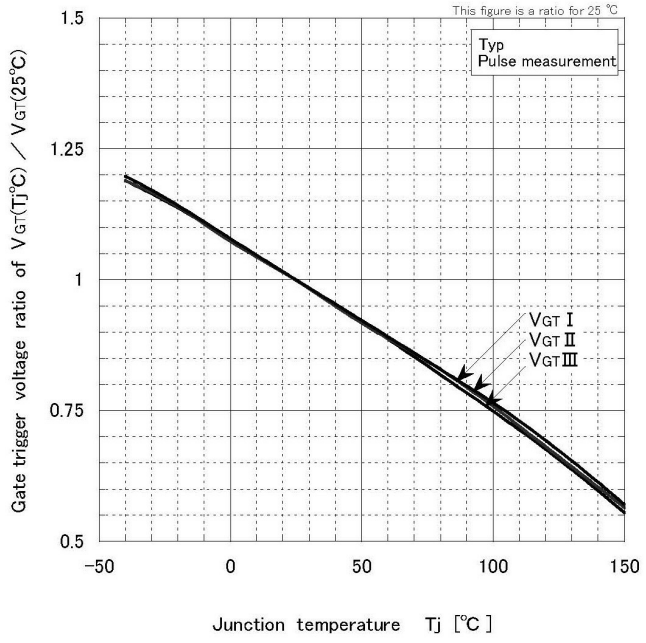
Gate trigger voltage – Pulse width



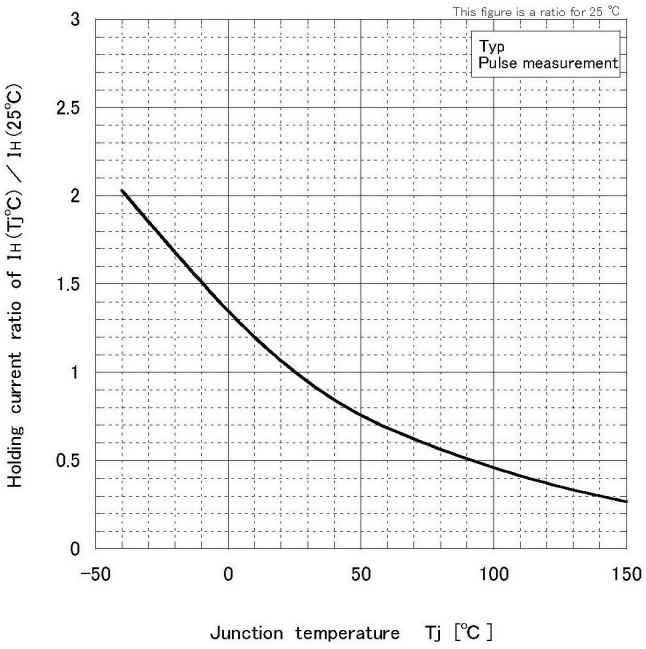
Gate trigger current – Junction temperature



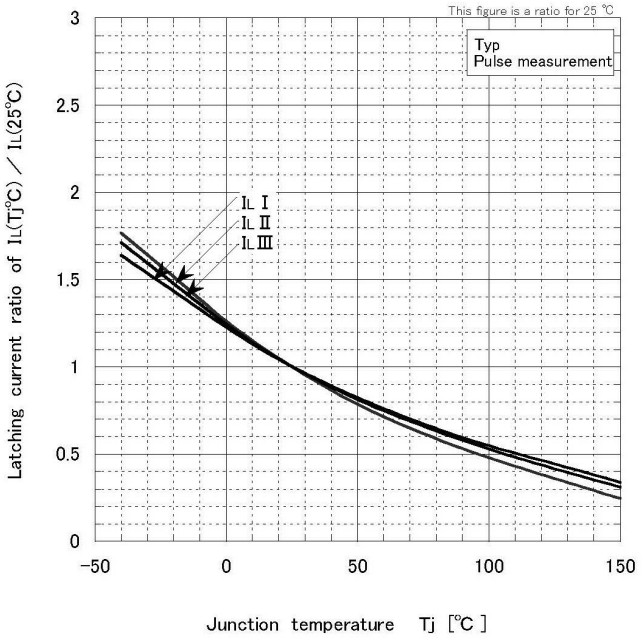
Gate trigger voltage – Junction temperature

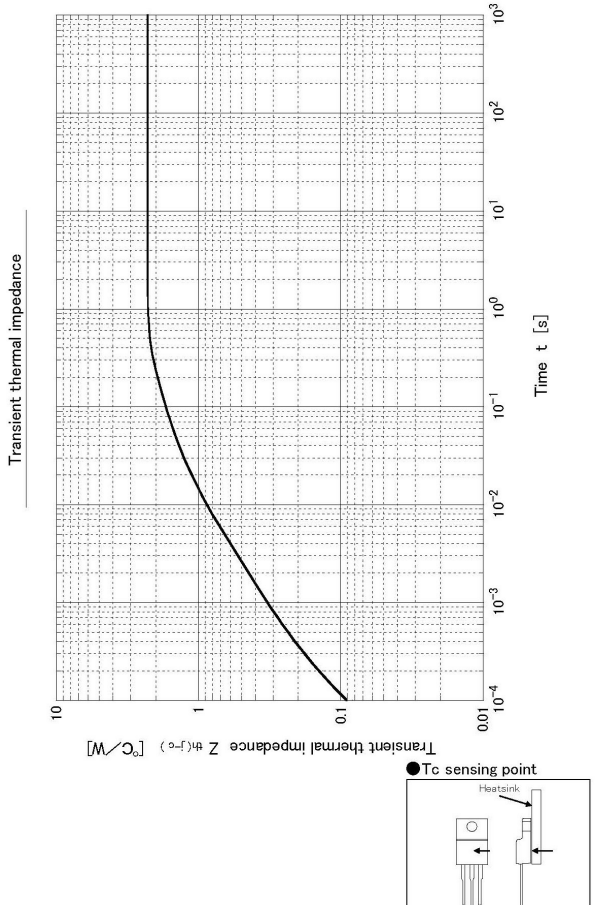


Holding current – Junction temperature



Latching current – Junction temperature



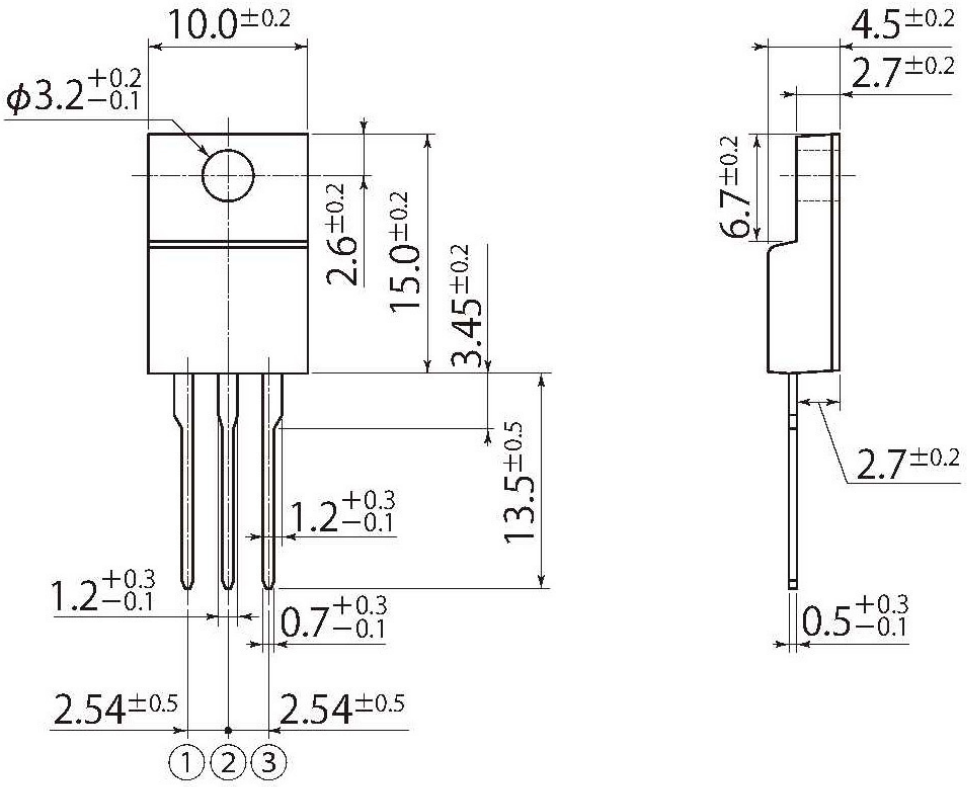


Outline Dimensions

unit:mm

J8

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



Notes

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