

# SF8K60USM

## Fast Recovery Diodes

600V, 8A

### Feature

- Full Molded
- High Voltage
- Low Noise
- Dielectric Strength 2kV
- Pb free terminal
- RoHS:Yes

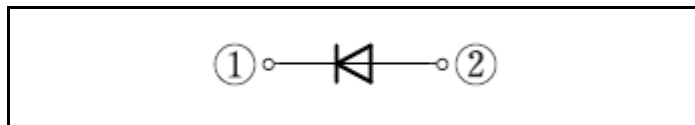
### OUTLINE

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 temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		600	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, T <sub>c</sub> =70°C	8	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, T <sub>c</sub> =111°C	5	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T <sub>j</sub> =25°C	60	A
Surge forward current	I <sub>FSM1</sub>	t <sub>p</sub> =1ms, Sine wave, Non-repetitive, 1 cycle, Peak value, T <sub>j</sub> =25°C	145	A
Dielectric strength	V <sub>dis</sub>	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque : 0.3N·m)	0.5	N·m

※ :See the original Specifications

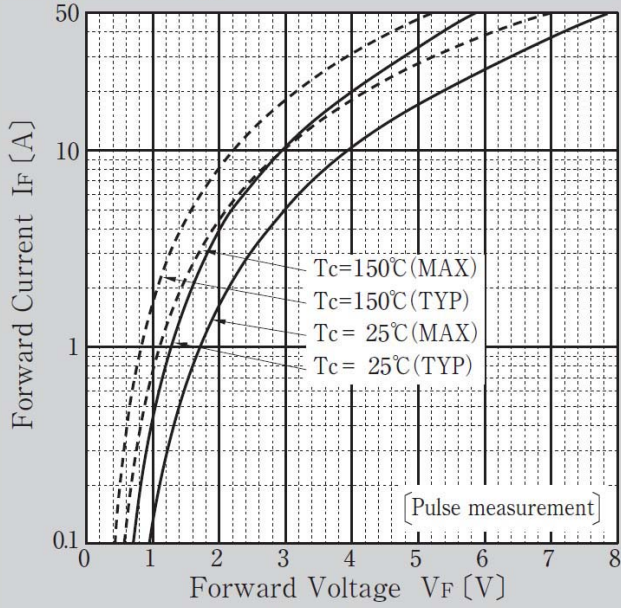
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =8A, Pulse measurement		2.7	3.6	V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A, Pulse measurement		2.2	3	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =600V, Pulse measurement			50	μA
Reverse recovery time	trr	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A			25	ns
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V		24		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case			2.6	°C/W

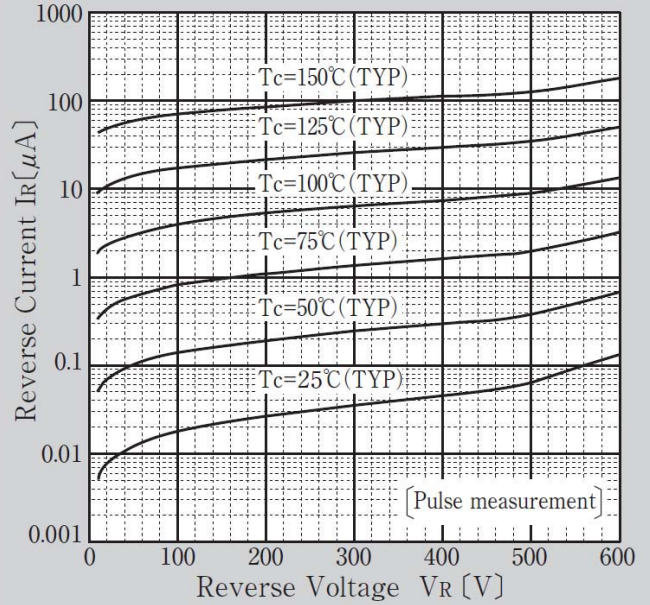
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

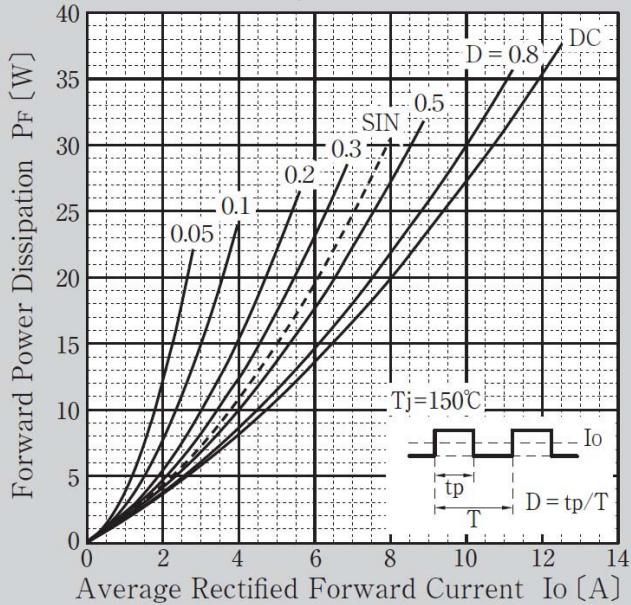
### Forward Voltage



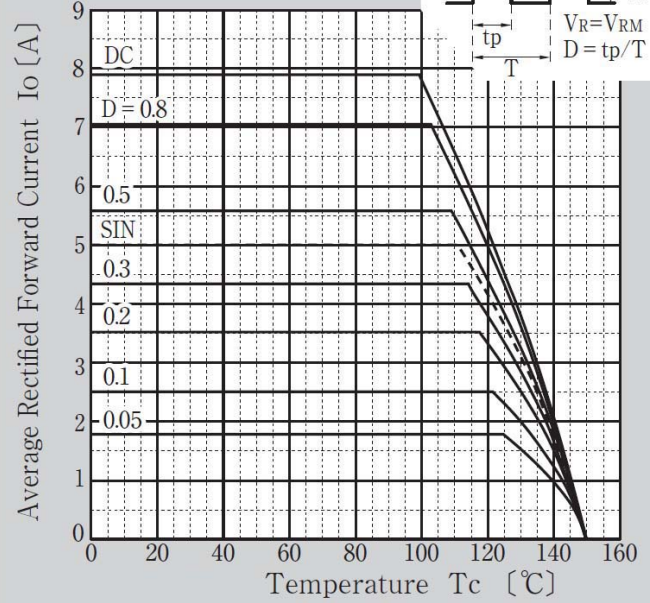
### Reverse Current

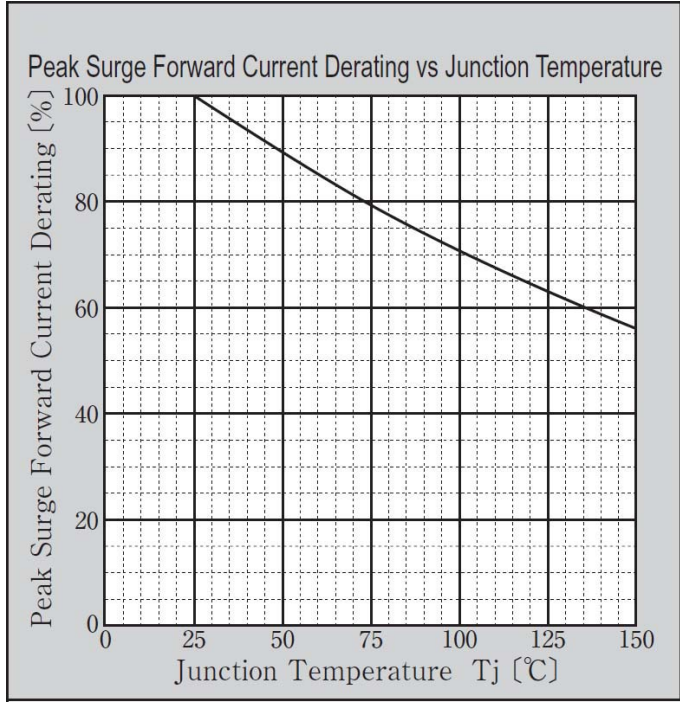
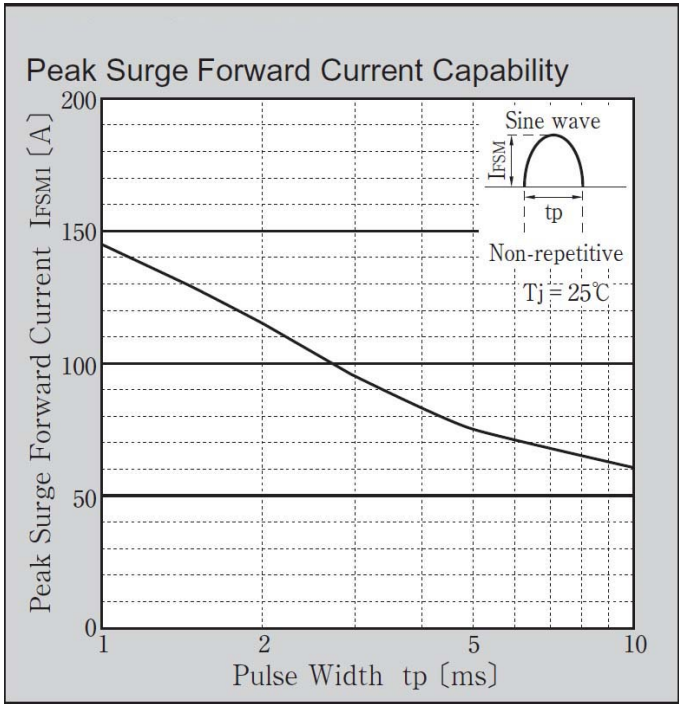
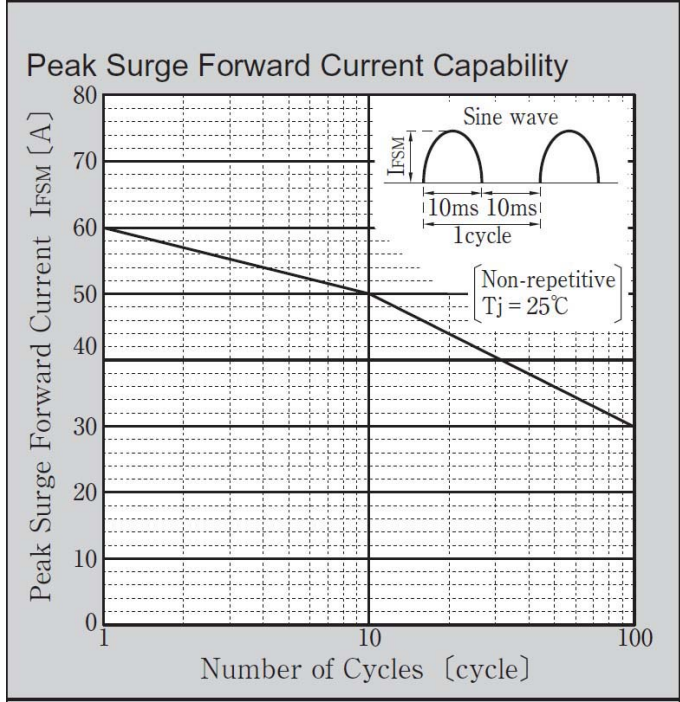
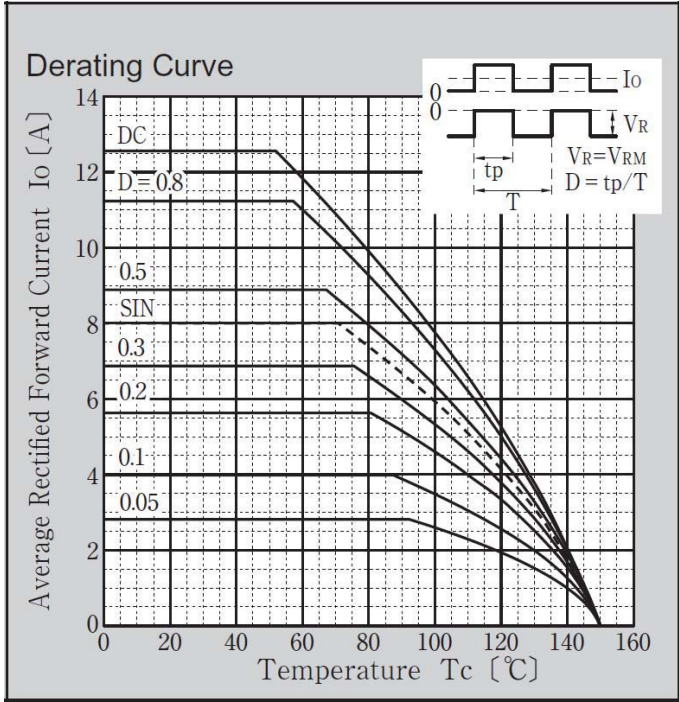


### Forward Power Dissipation



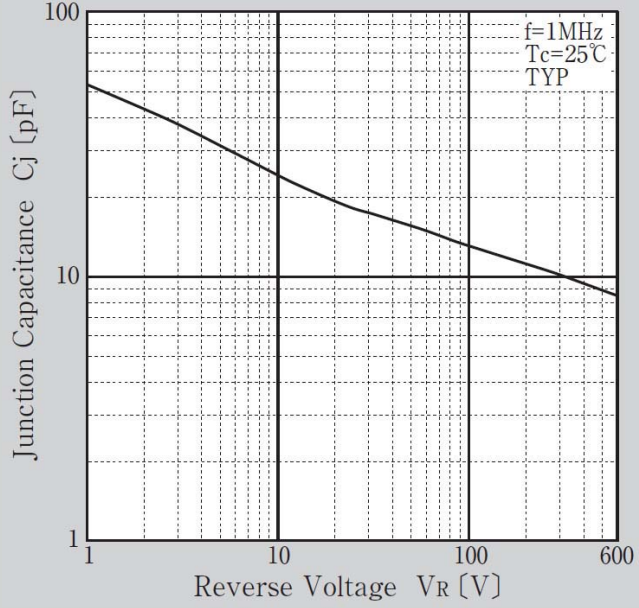
### Derating Curve



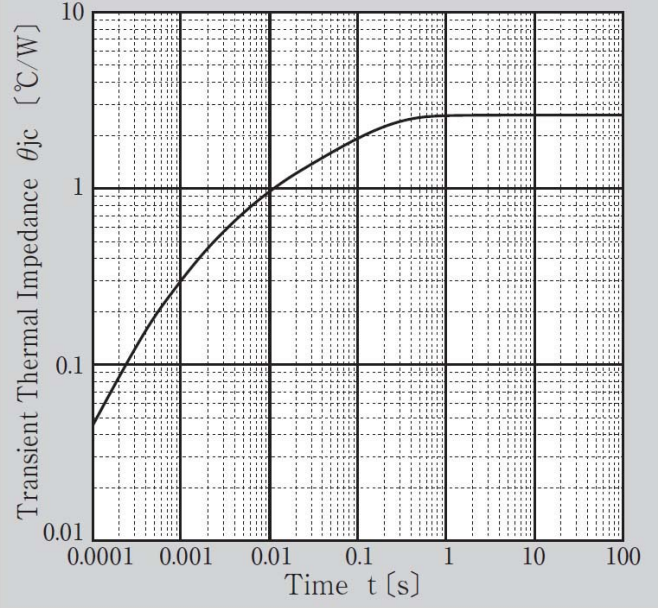




Junction Capacitance

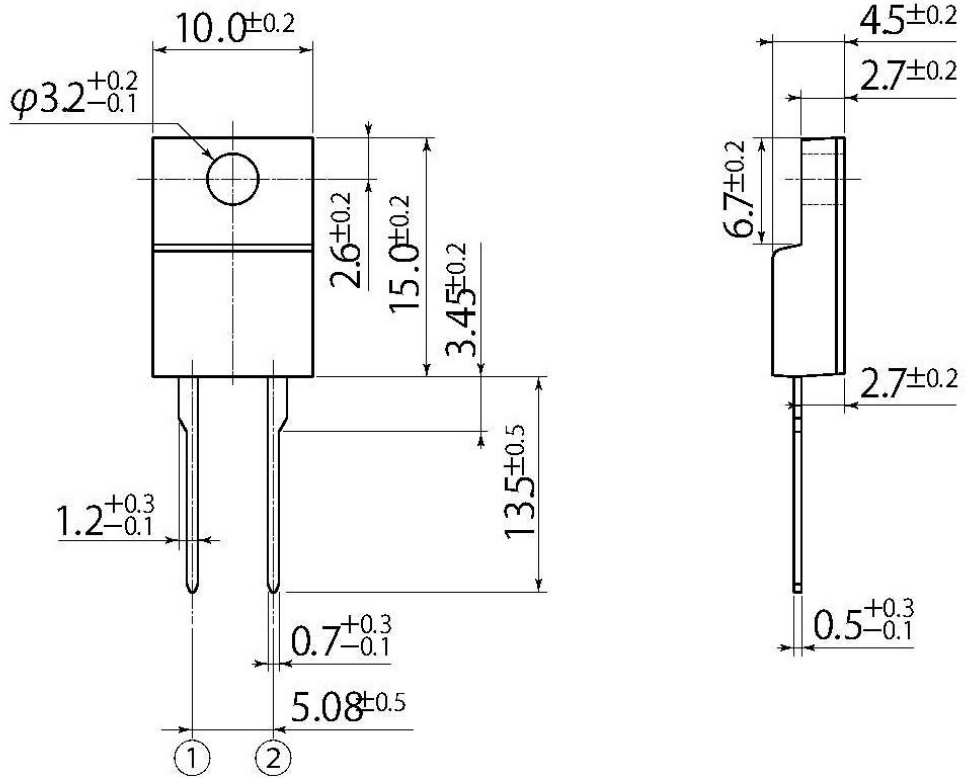


Transient Thermal Impedance



J3

JEDEC Code	—
JEITA Code	SC-91
House Name	FTO-220AG(2pin)



## Notes

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