

# SG5S4M

## Schottky Barrier Diodes

40V, 5A

### Feature

- High Recovery Speed
- Low  $V_F$
- Pb free terminal
- RoHS:Yes

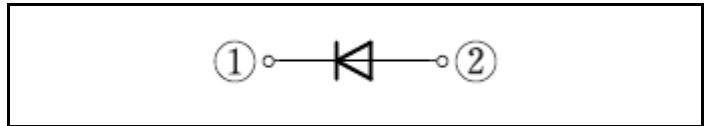
### OUTLINE

Package (House Name): FTO-220G

Package (JEITA Code): SC-91



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$ )

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	$T_{stg}$		-55 to 150	$^\circ\text{C}$
Junction temperature	$T_j$		-55 to 150	$^\circ\text{C}$
Repetitive peak reverse voltage	$V_{RRM}$		40	V
Repetitive peak surge reverse voltage	$V_{RRSM}$	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, With heatsink, $T_c=131^\circ\text{C}$	5	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive, 1cycle, Peak value, $T_j=25^\circ\text{C}$	150	A
Dielectric strength	$V_{dis}$	Terminals to case backside, AC 1 minute.	1.5	kV
Mounting torque	TOR	(Recommended torque : 0.3N·m)	0.5	N·m

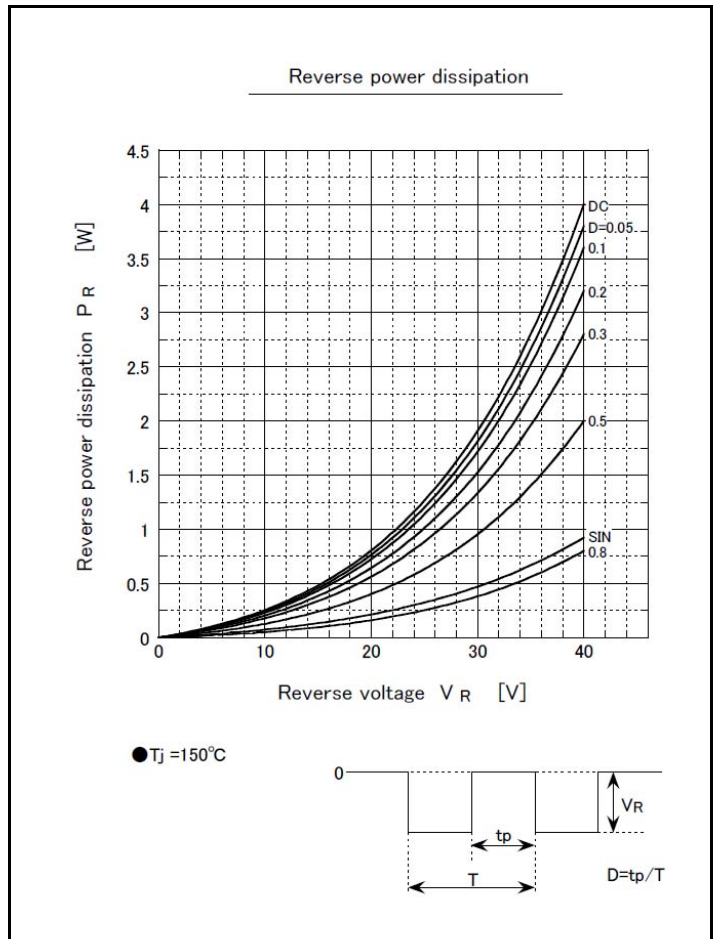
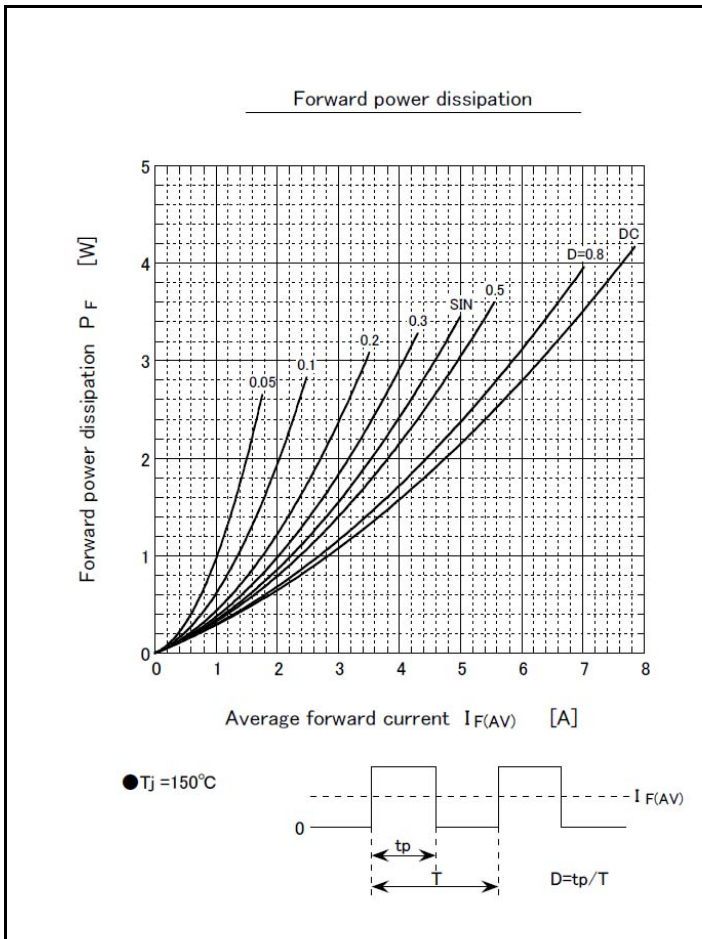
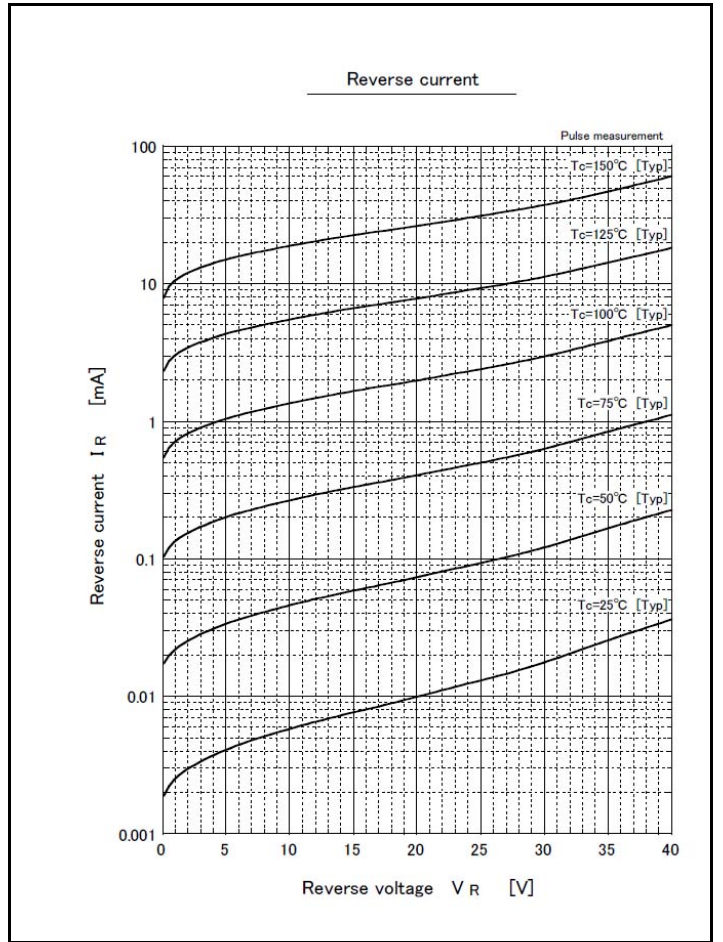
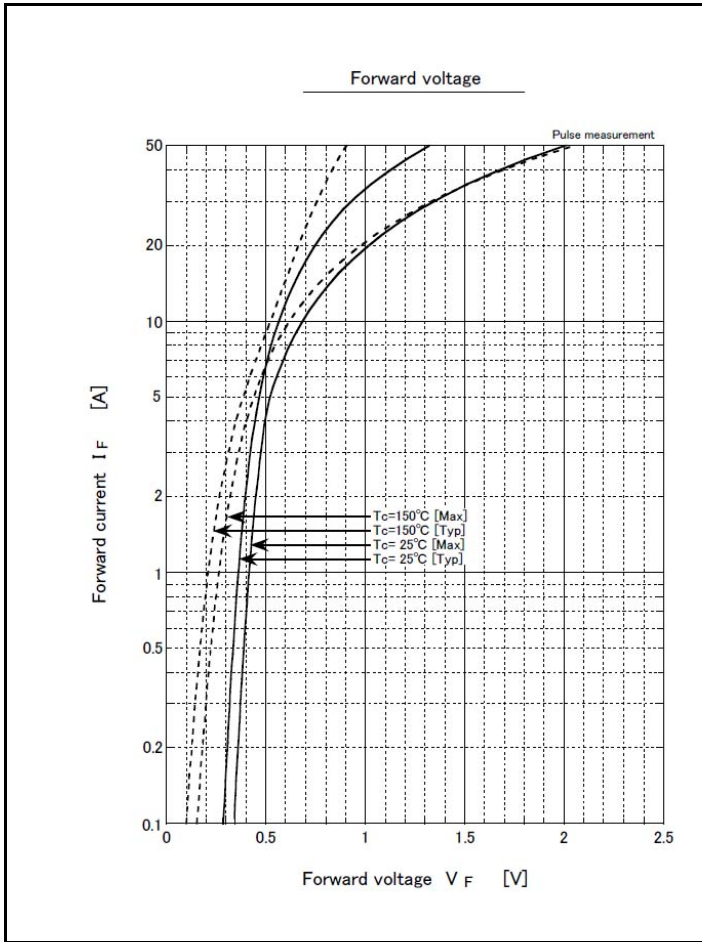
\* : See the original Specifications

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

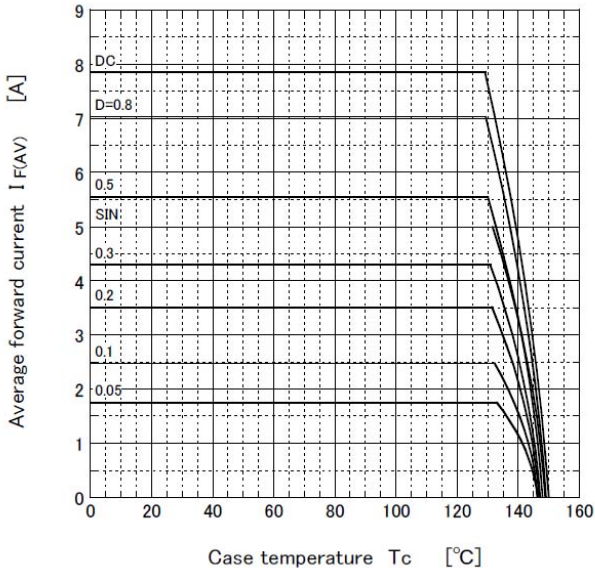
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A, Pulse measurement		0.47	0.52	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =40V, Pulse measurement			0.5	mA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V		157		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case, With heatsink			5	°C/W

\* : See the original Specifications

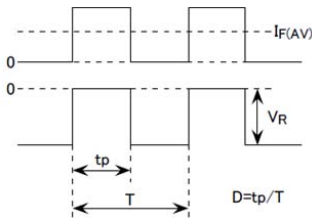
# CHARACTERISTIC DIAGRAMS



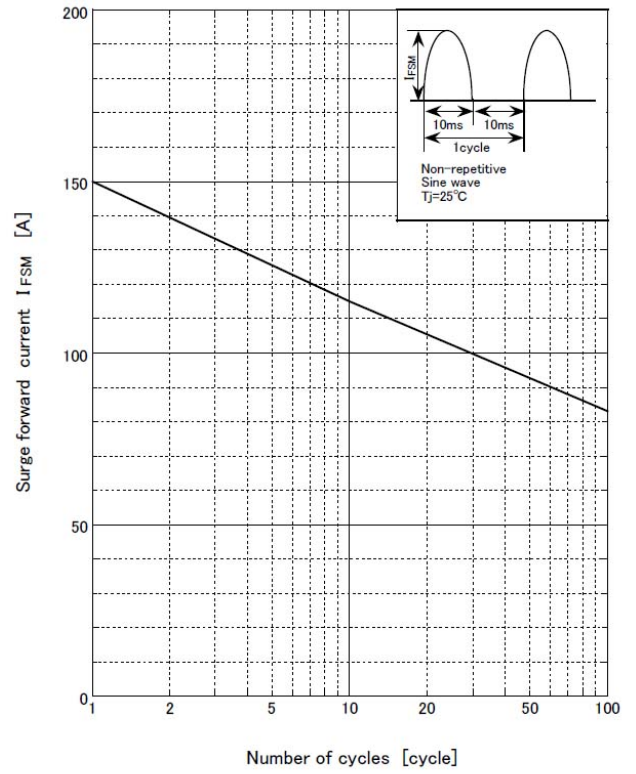
Derating curve



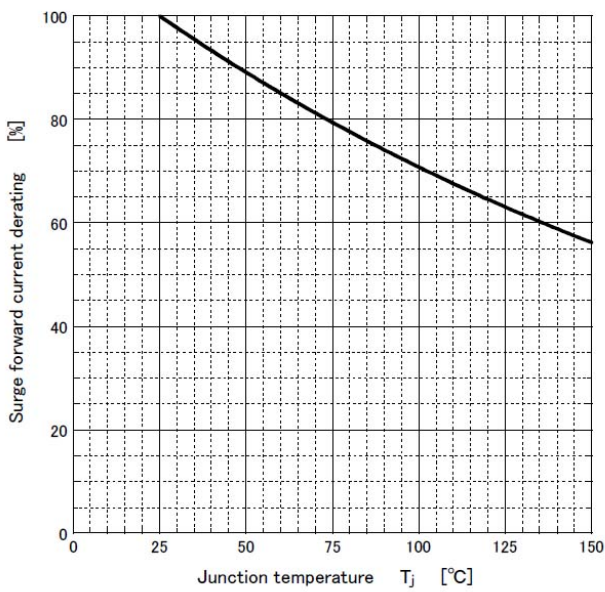
●  $V_R = 20V$   
R-load  
With heatsink



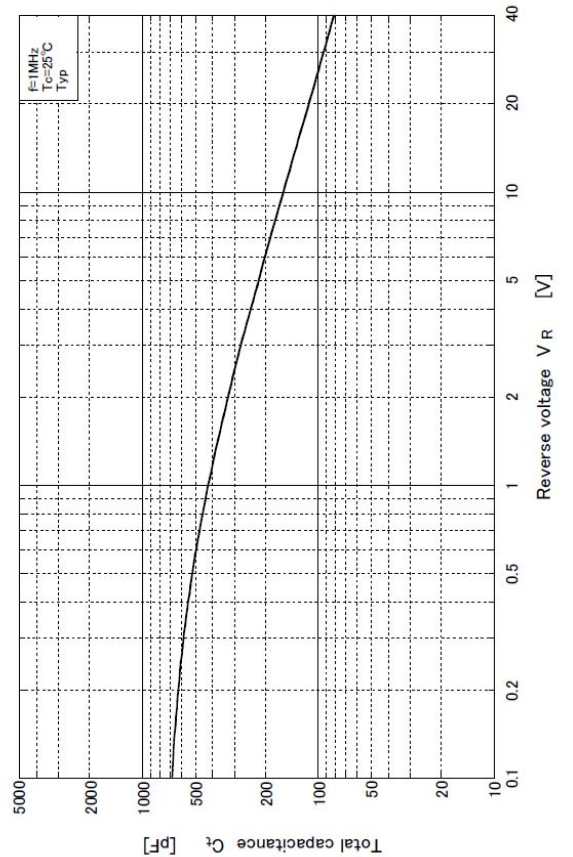
Surge forward current capability



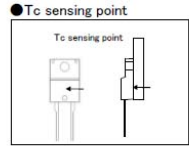
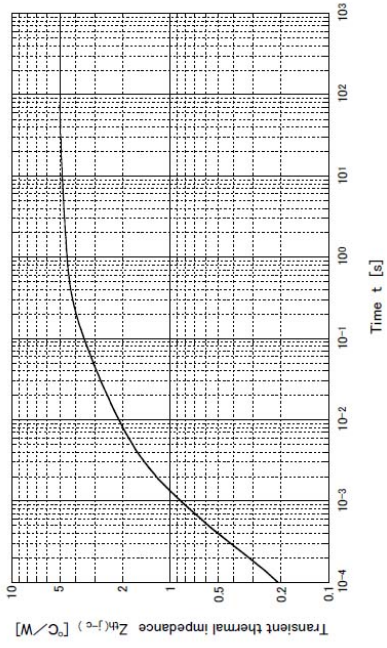
Surge forward current derating vs Junction temperature



Total capacitance

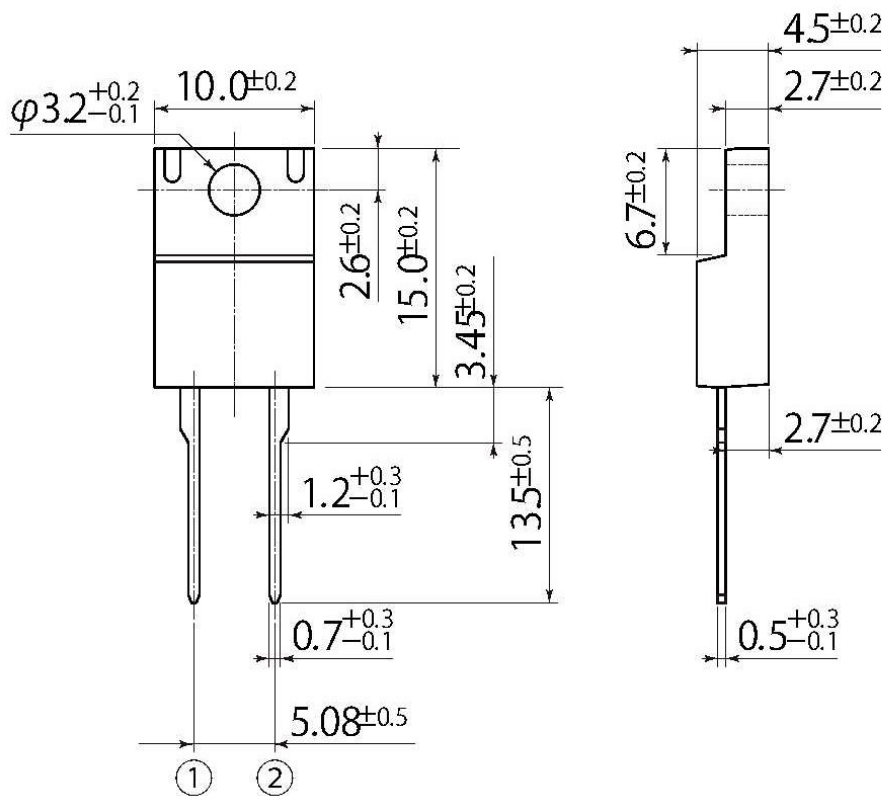


Transient thermal impedance



J4

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



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