

SG5S4M

Schottky Barrier Diodes

40V, 5A

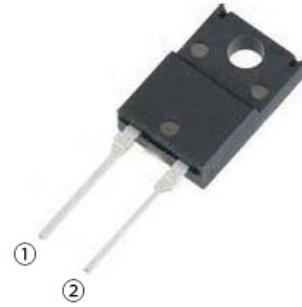
Feature

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

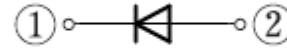
OUTLINE

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 : $0.3\text{N}\cdot\text{m}$)	0.5	$\text{N}\cdot\text{m}$

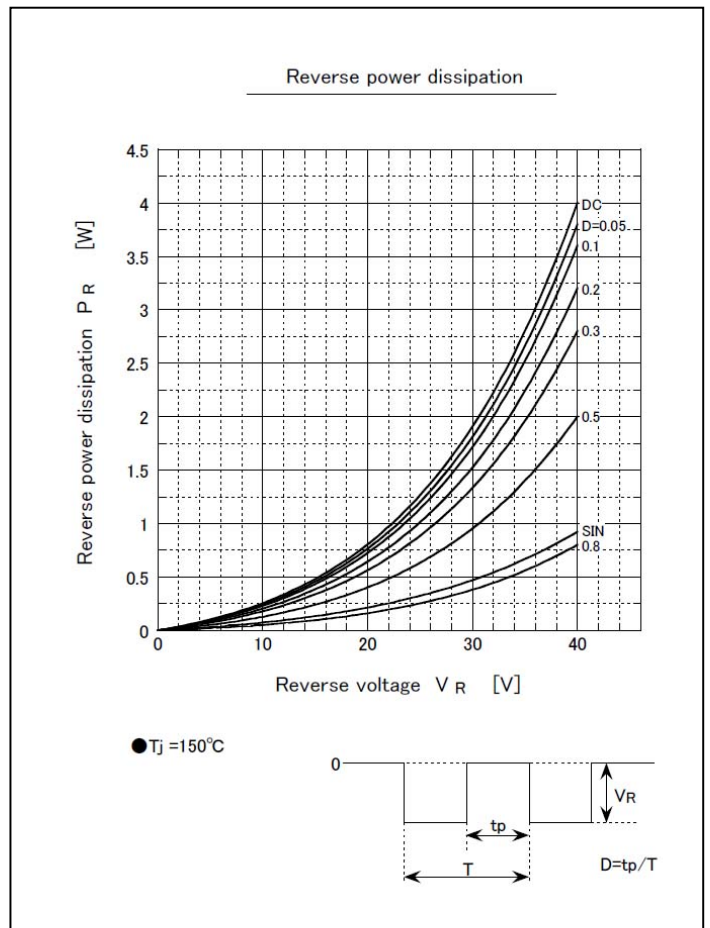
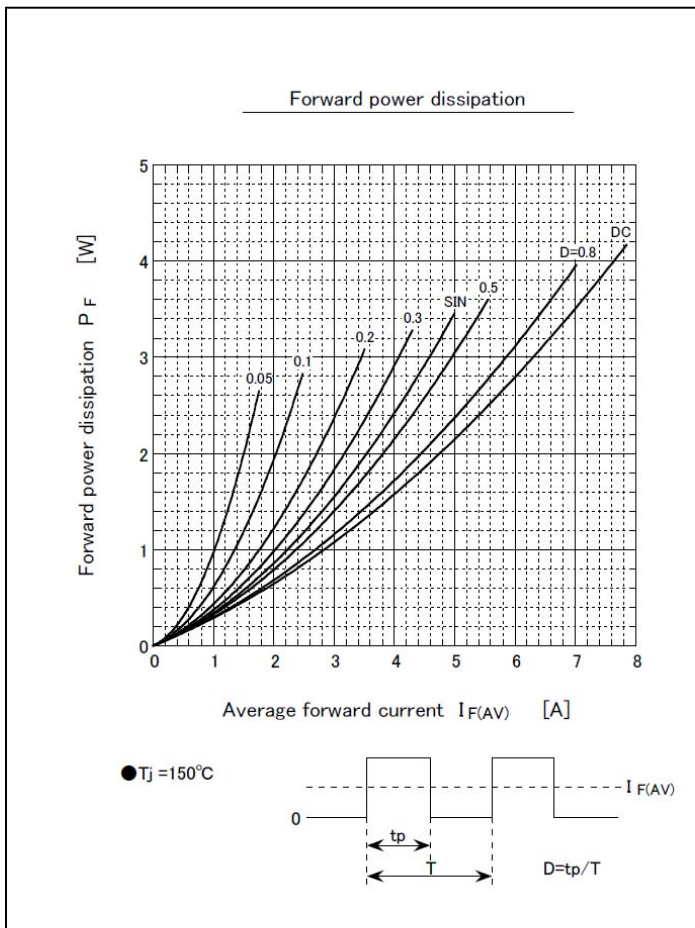
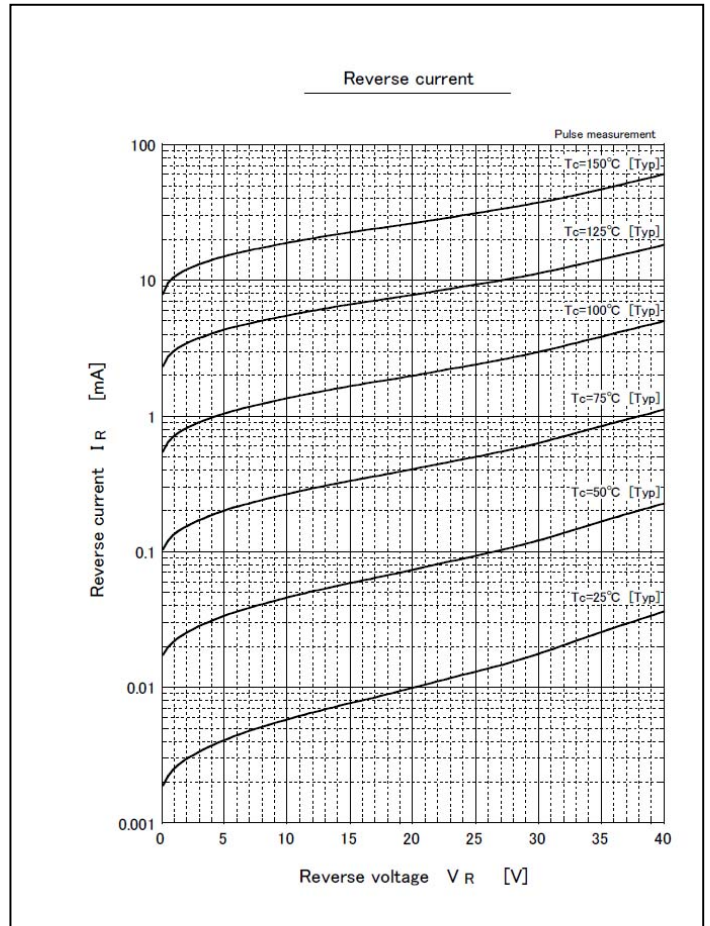
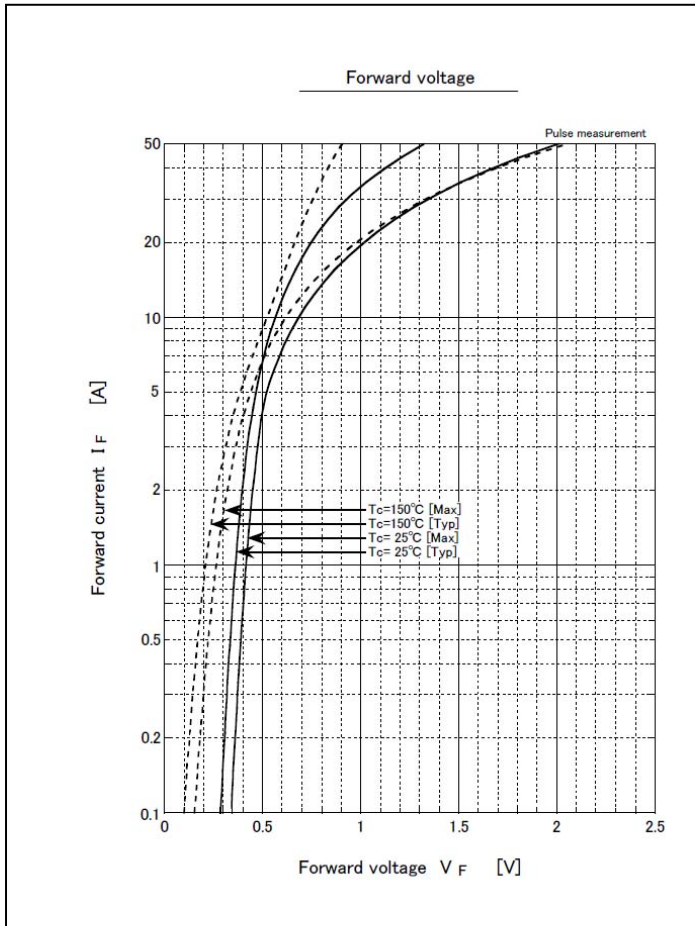
※ : See the original Specifications

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

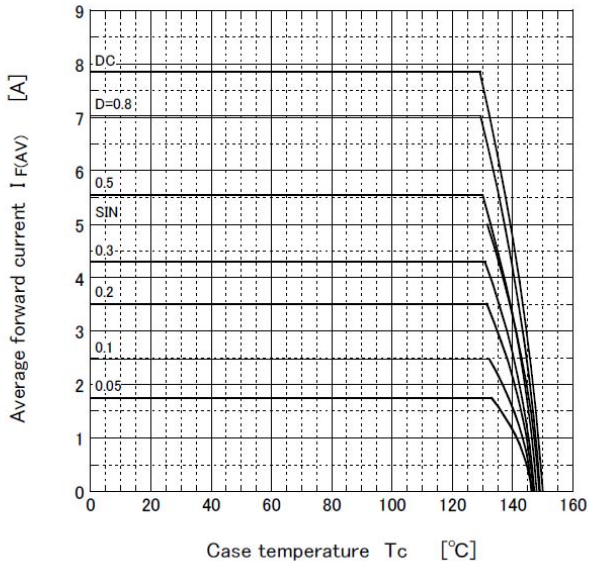
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	IF=5A, Pulse measurement		0.47	0.52	V
Reverse current	I _R	VR=40V, Pulse measurement			0.5	mA
Total capacitance	Ct	f=1MHz, VR=10V		157		pF
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			5	°C/W

※ :See the original Specifications

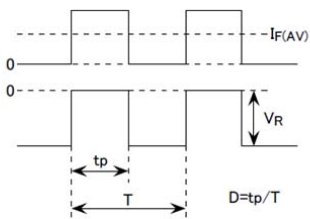
CHARACTERISTIC DIAGRAMS



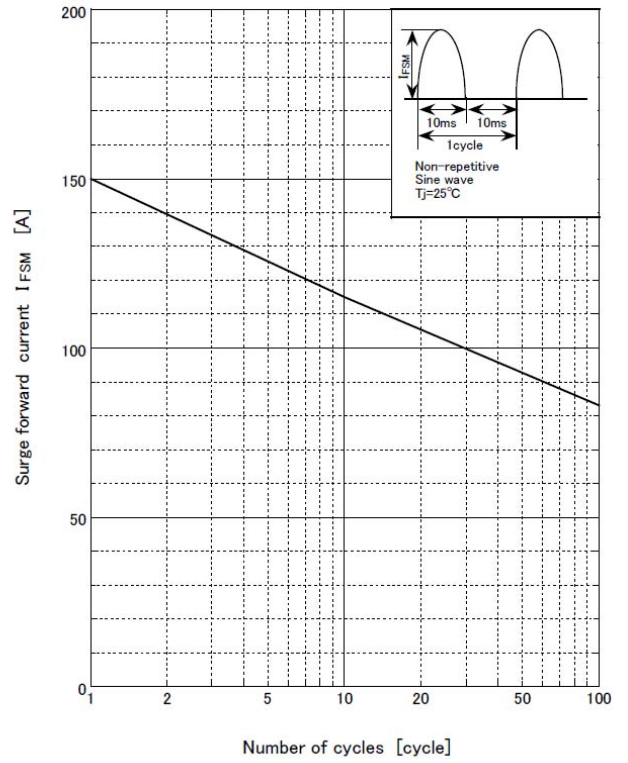
Derating curve



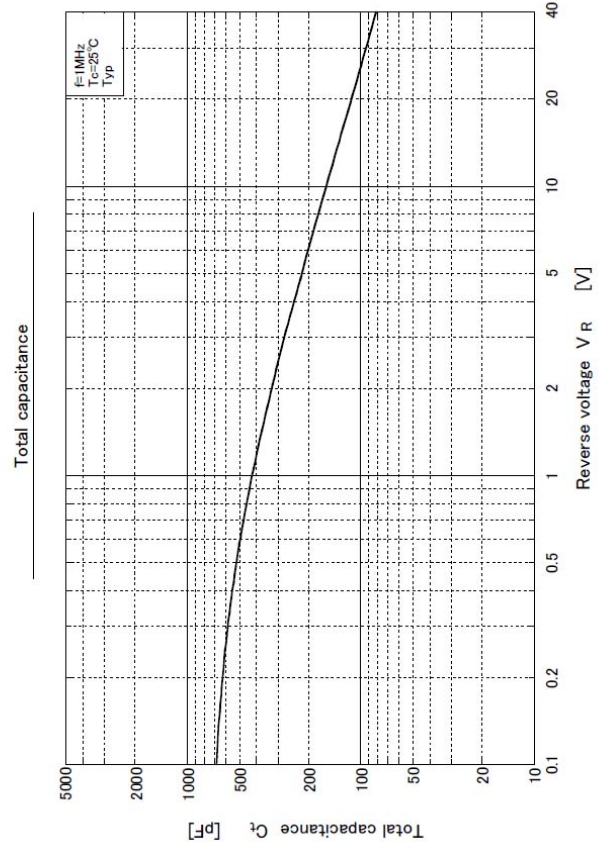
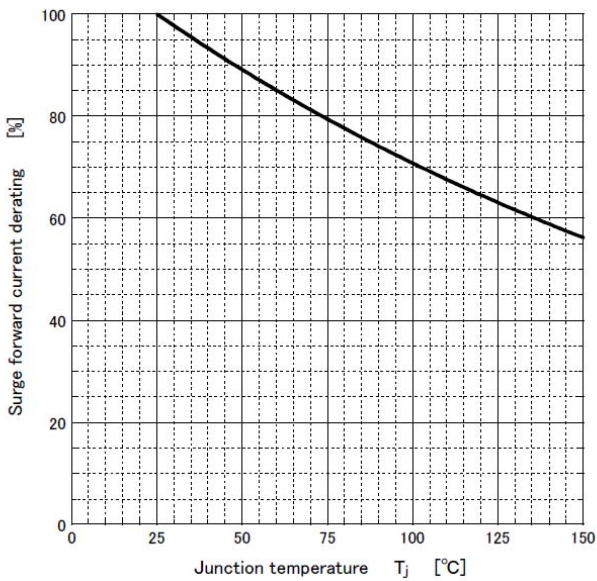
● $V_R = 20V$
R-load
With heatsink



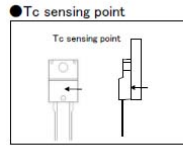
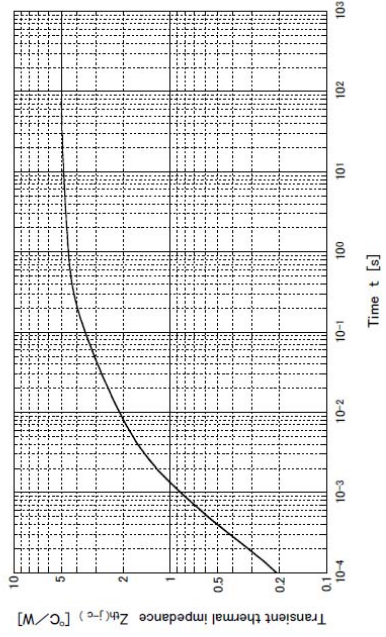
Surge forward current capability



Surge forward current derating vs Junction temperature

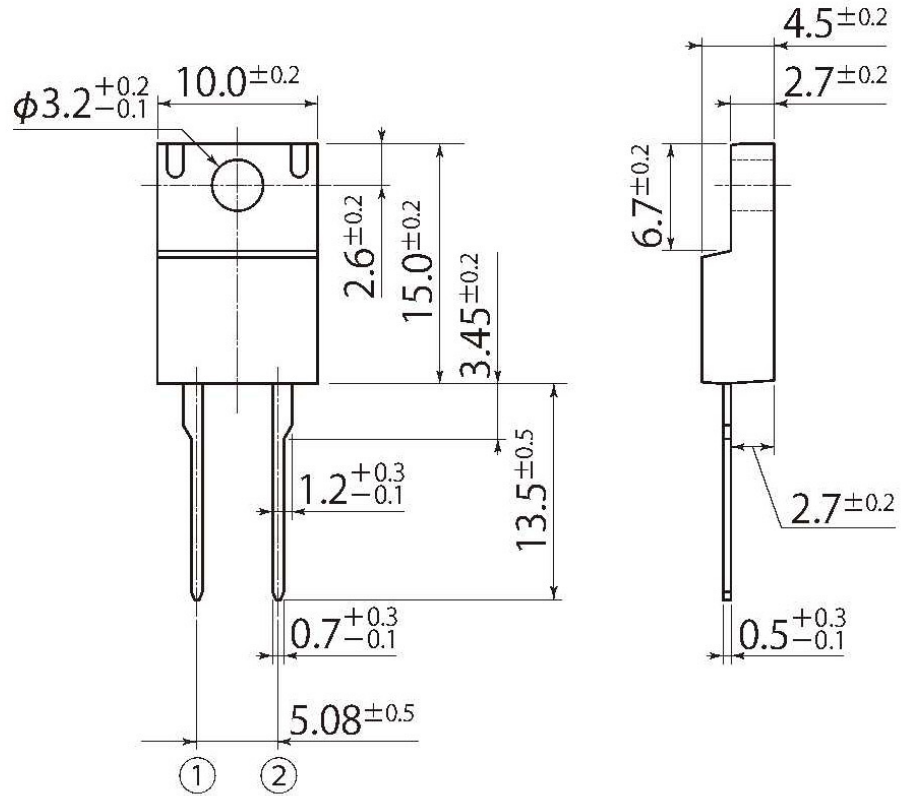


Transient thermal impedance



J4

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



Notes

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