

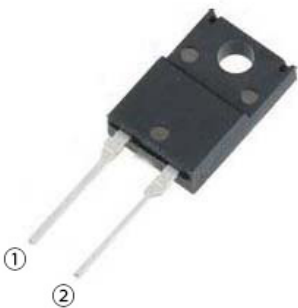
SG5S4M
Schottky Barrier Diodes
40V, 5A

Feature

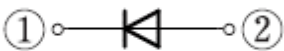
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

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

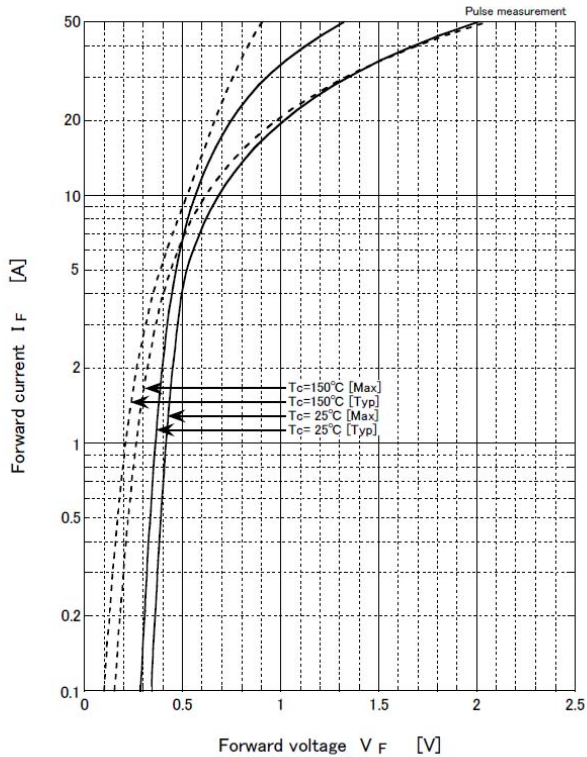
Electrical Characteristics (unless otherwise specified : Tc=25°C)

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

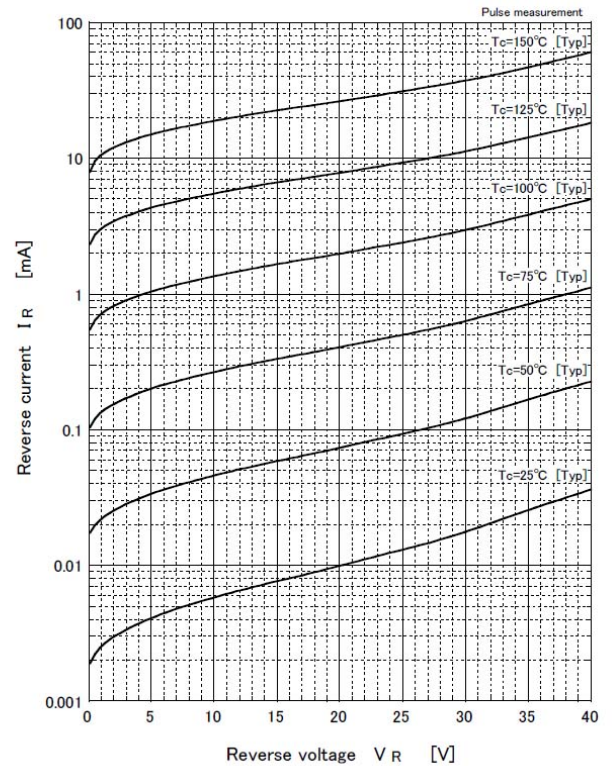
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

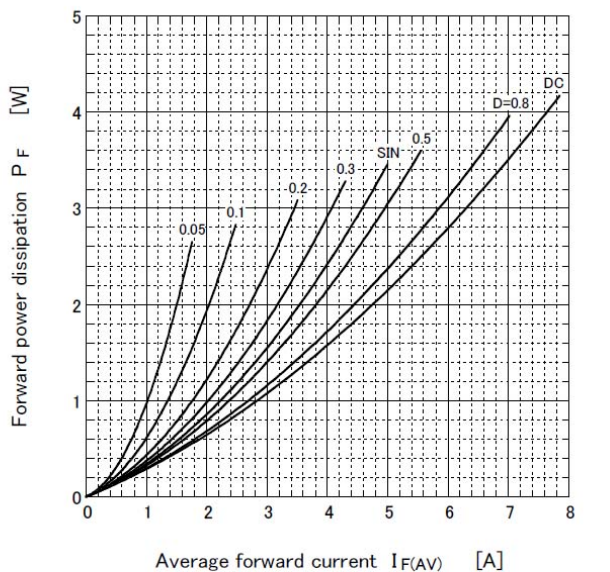
Forward voltage



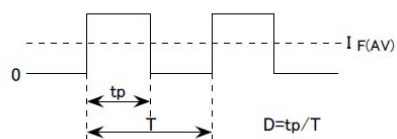
Reverse current



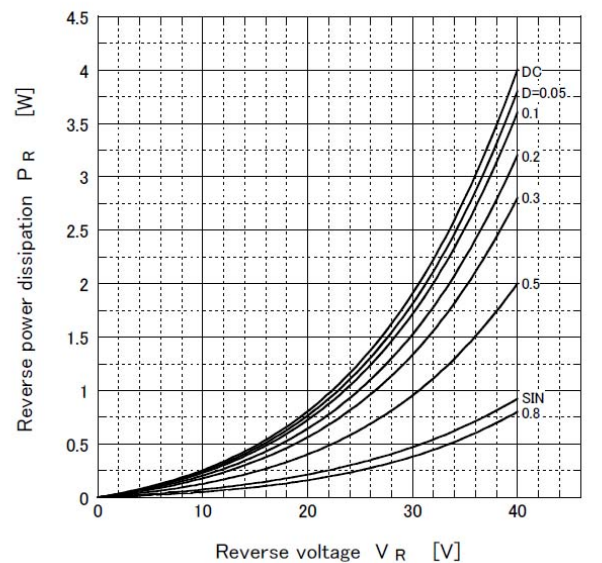
Forward power dissipation



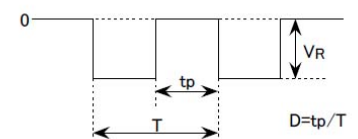
● $T_J=150^\circ\text{C}$



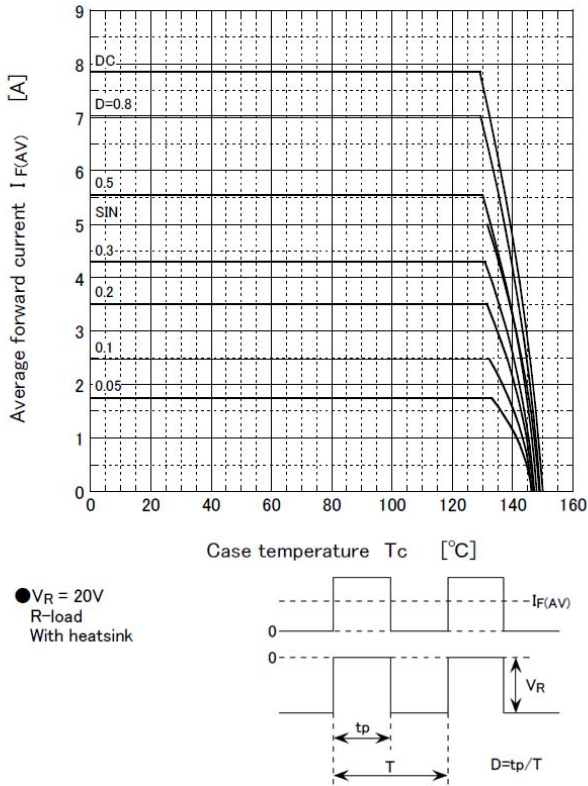
Reverse power dissipation



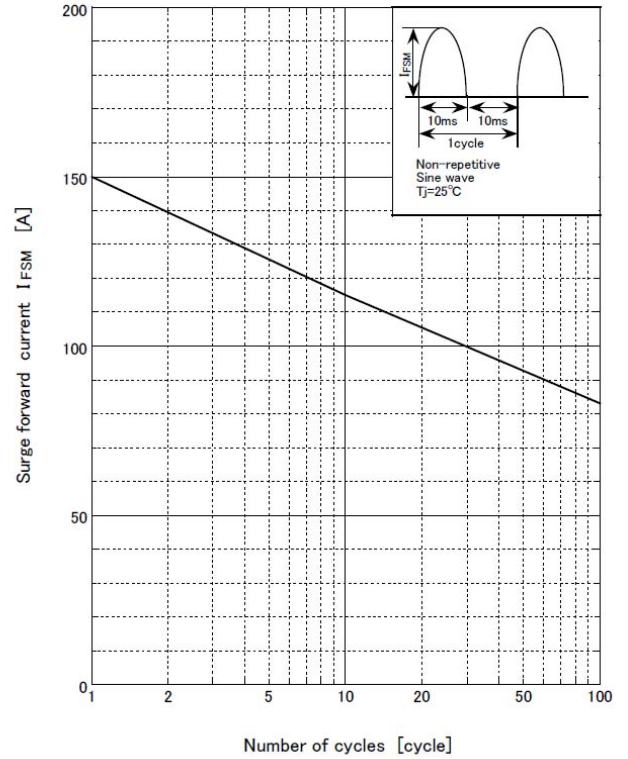
● $T_J=150^\circ\text{C}$



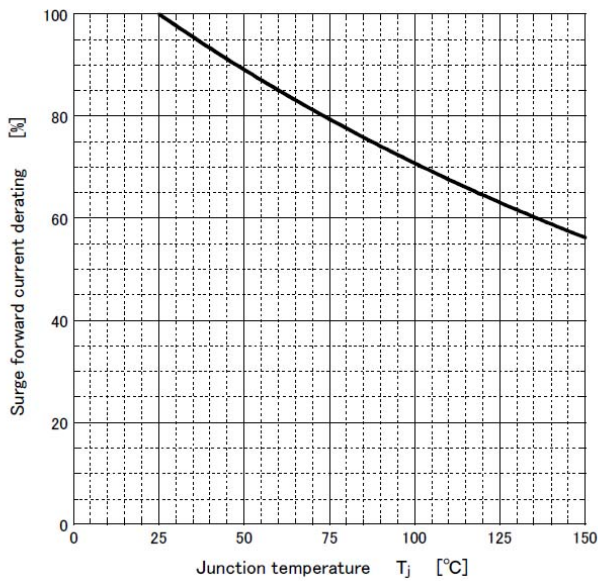
Derating curve



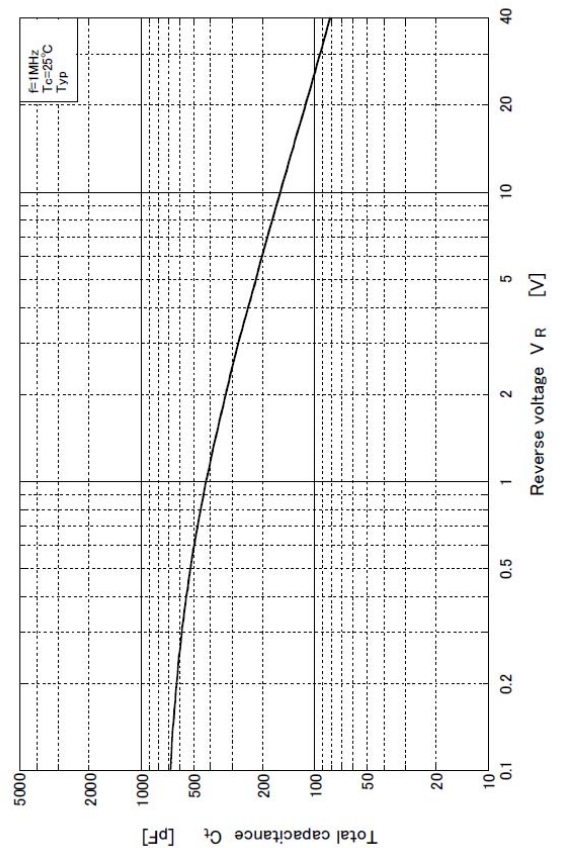
Surge forward current capability



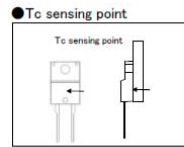
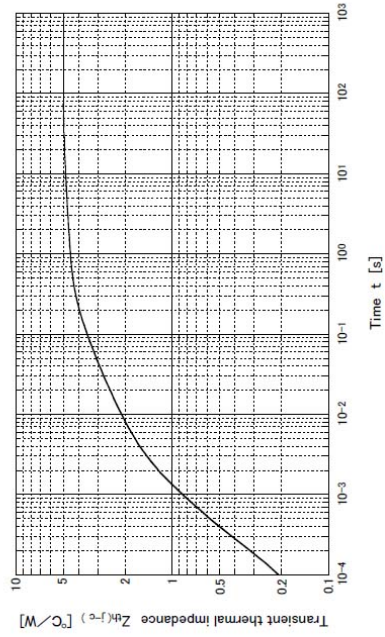
Surge forward current derating vs Junction temperature



Total capacitance

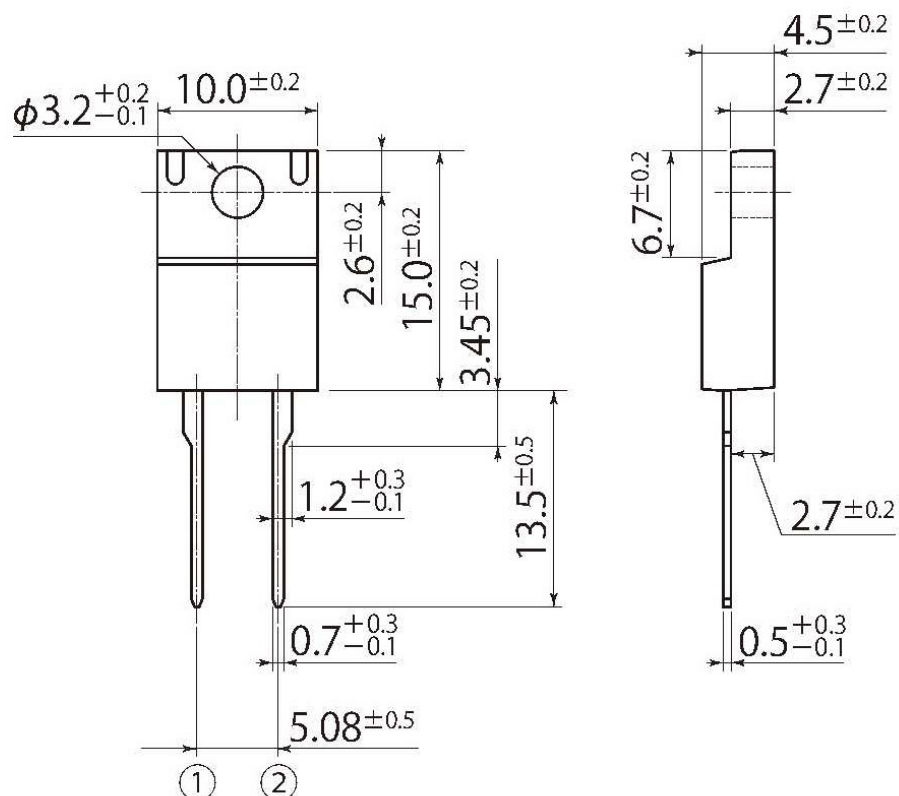


Transient thermal impedance



J4

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



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