

SG5S9M

Schottky Barrier Diodes

90V, 5A

Feature

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

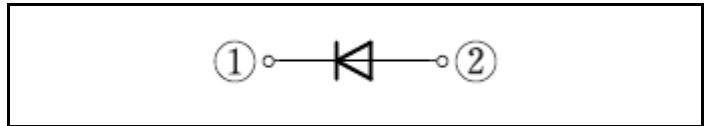
OUTLINE

Package (House Name): FTO-220G

Package (JEITA Code): SC-91



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : T_c=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		90	V
Repetitive peak surge reverse voltage	V _{RRSM}	Pulse width 0.5ms, duty=1/40	100	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink, T _c =124°C	5	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, T _j =25°C	90	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

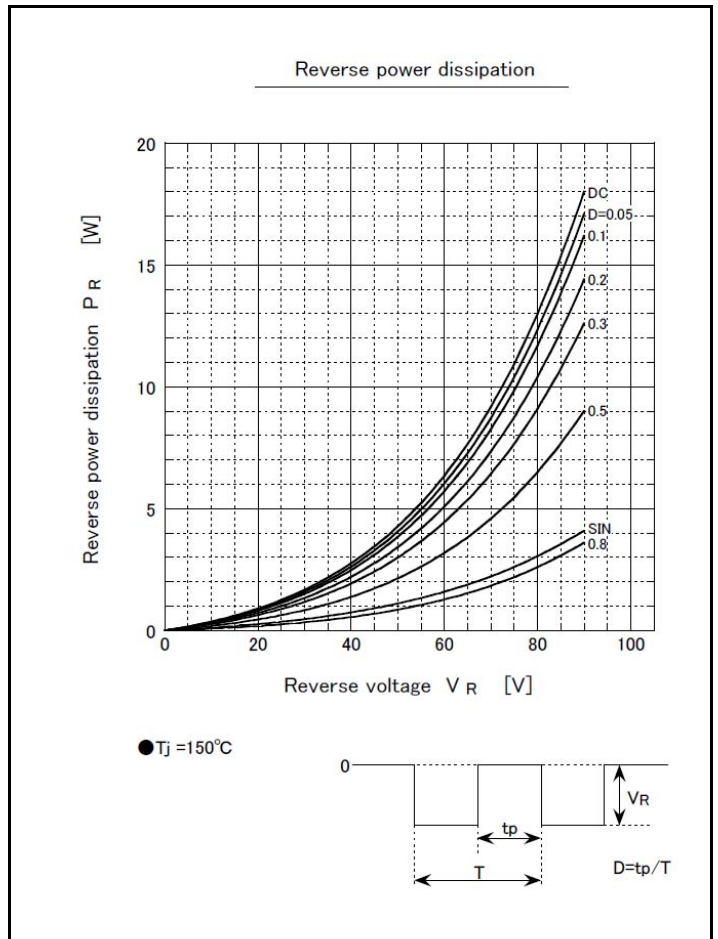
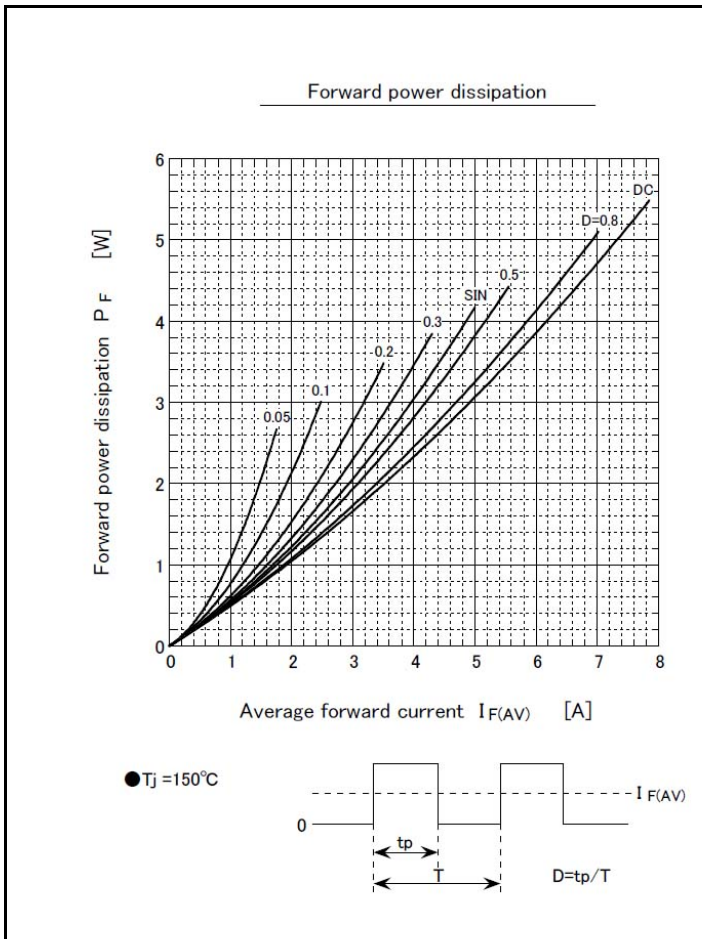
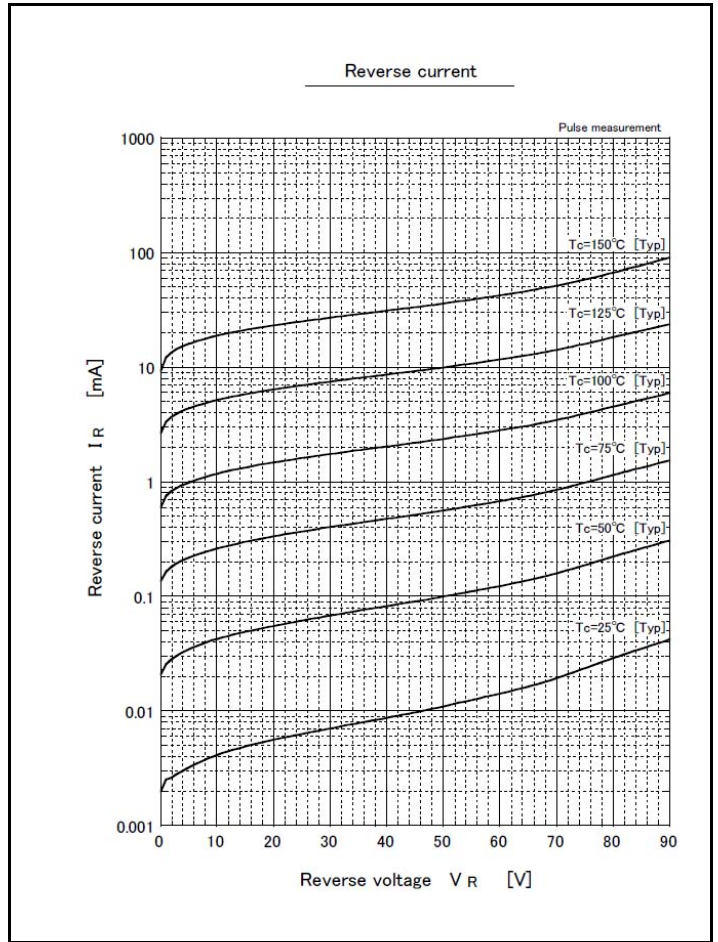
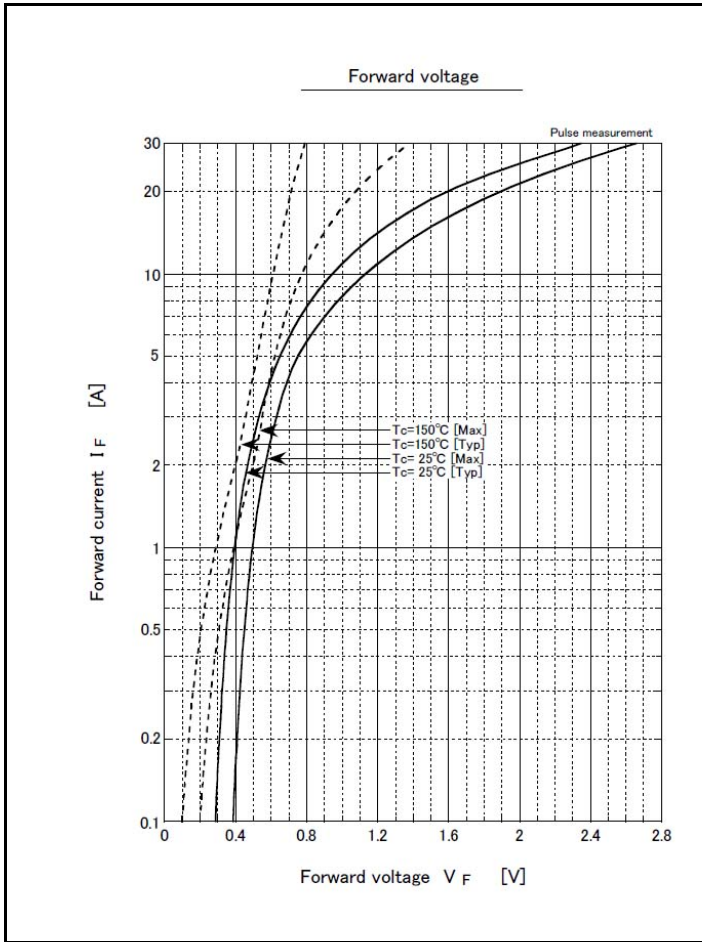
* : See the original Specifications

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

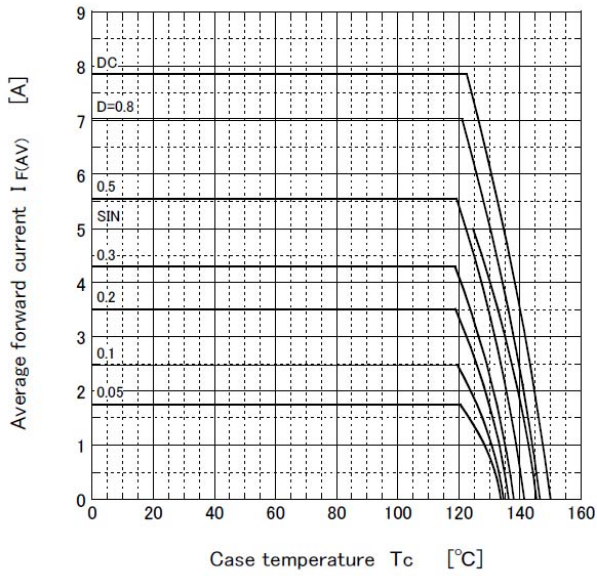
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =5A, Pulse measurement		0.65	0.75	V
Reverse current	I _R	V _R =90V, Pulse measurement			0.5	mA
Total capacitance	C _t	f=1MHz, V _R =10V		140		pF
Thermal resistance	R _{th(j-c)}	Junction to case, With heatsink			5	°C/W

* : See the original Specifications

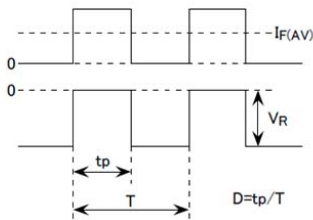
CHARACTERISTIC DIAGRAMS



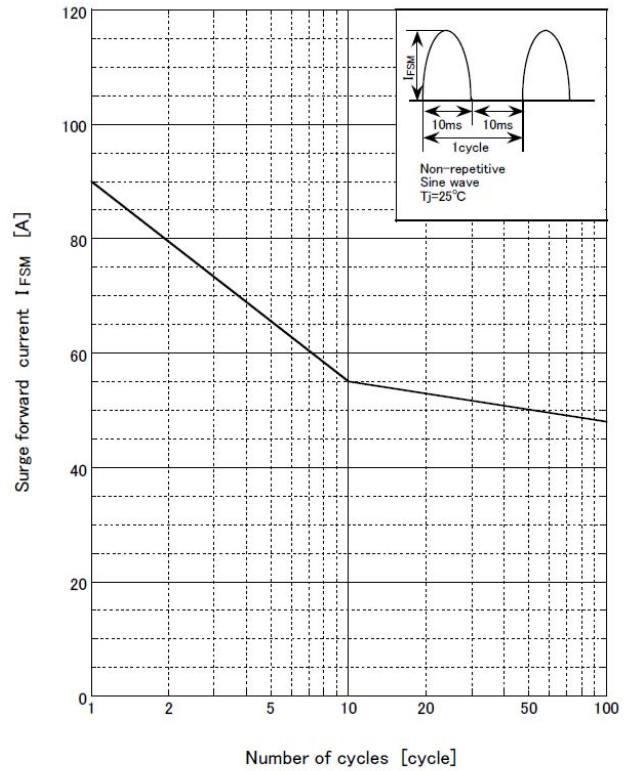
Derating curve



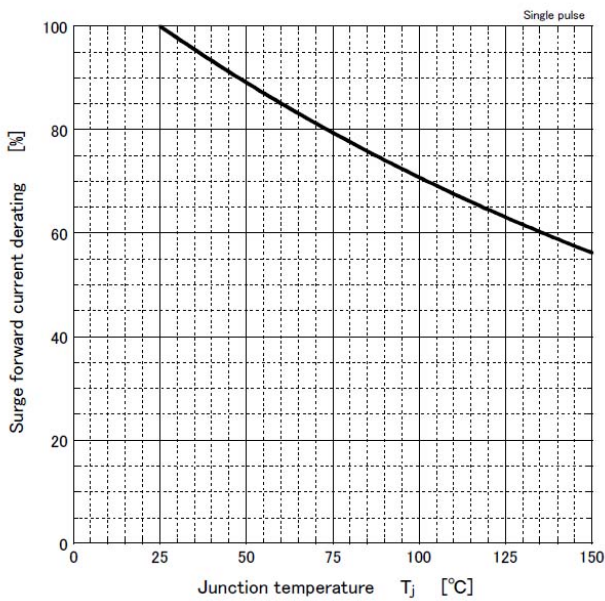
● $V_R = 45V$
R-load
With heatsink



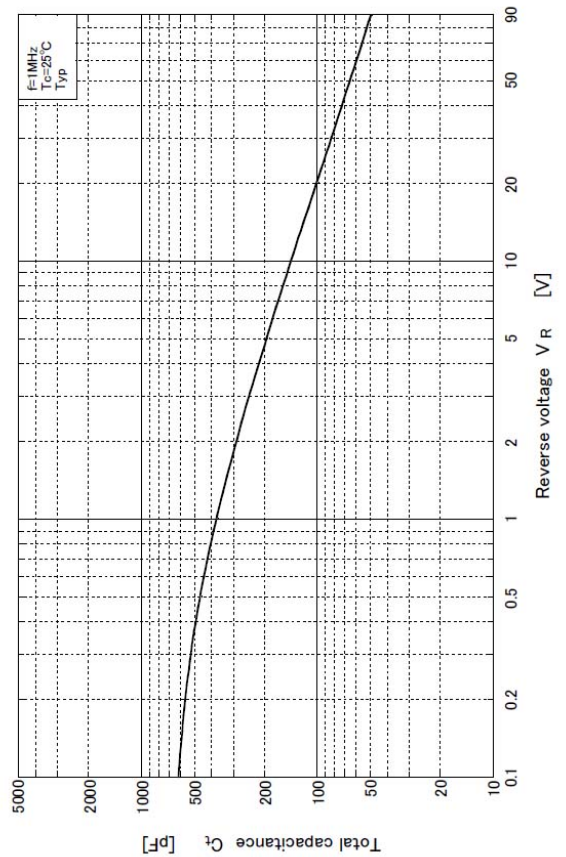
Surge forward current capability



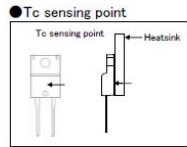
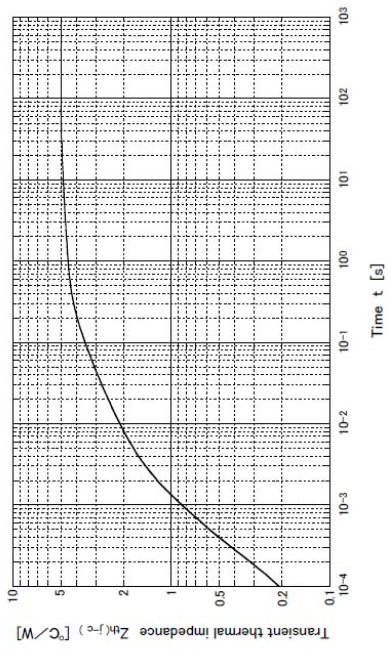
Surge forward current derating vs Junction temperature



Total capacitance

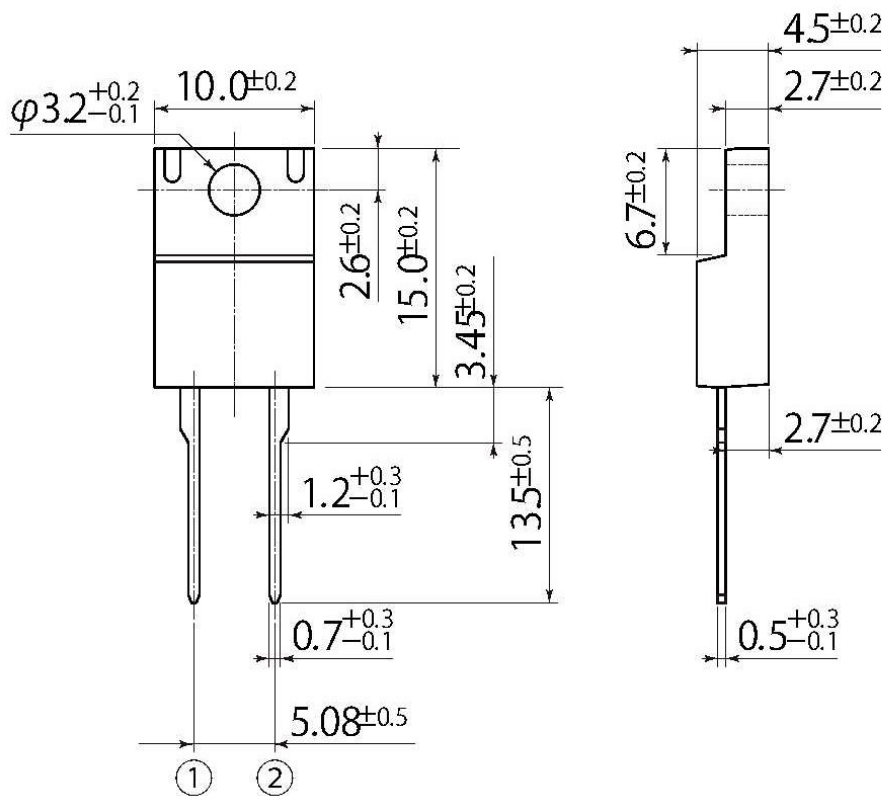


Transient thermal impedance



J4

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



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