

# SG20SC9M

## Schottky Barrier Diodes

90V, 20A

### Feature

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

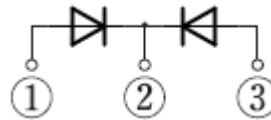
### OUTLINE

Package (House Name): FTO-220G

Package (JEITA Code): SC-91



### Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		90	V
Repetitive peak surge reverse voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty=1/40	100	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Rating for each diode I <sub>F(AV)</sub> /2, With heatsink, T <sub>c</sub> =112°C	20	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive, 1cycle, Peak value, T <sub>j</sub> =150°C	200	A
Dielectric strength	V <sub>dis</sub>	Terminals to case backside, AC 1 minute.	1.5	kV
Mounting torque	TOR	(Recommended torque : 0.3N·m)	0.5	N·m

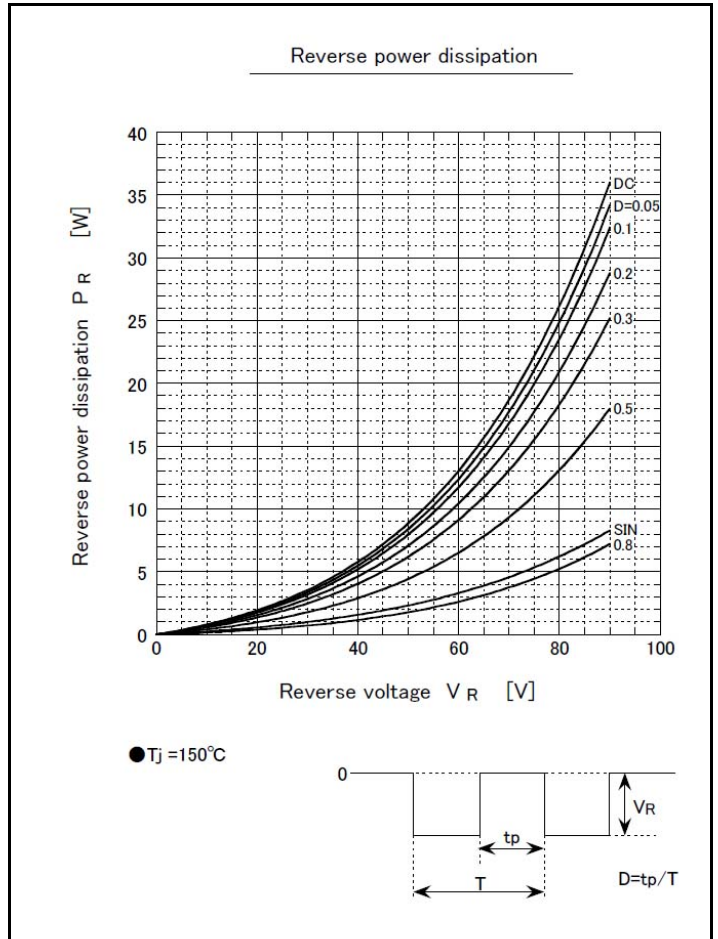
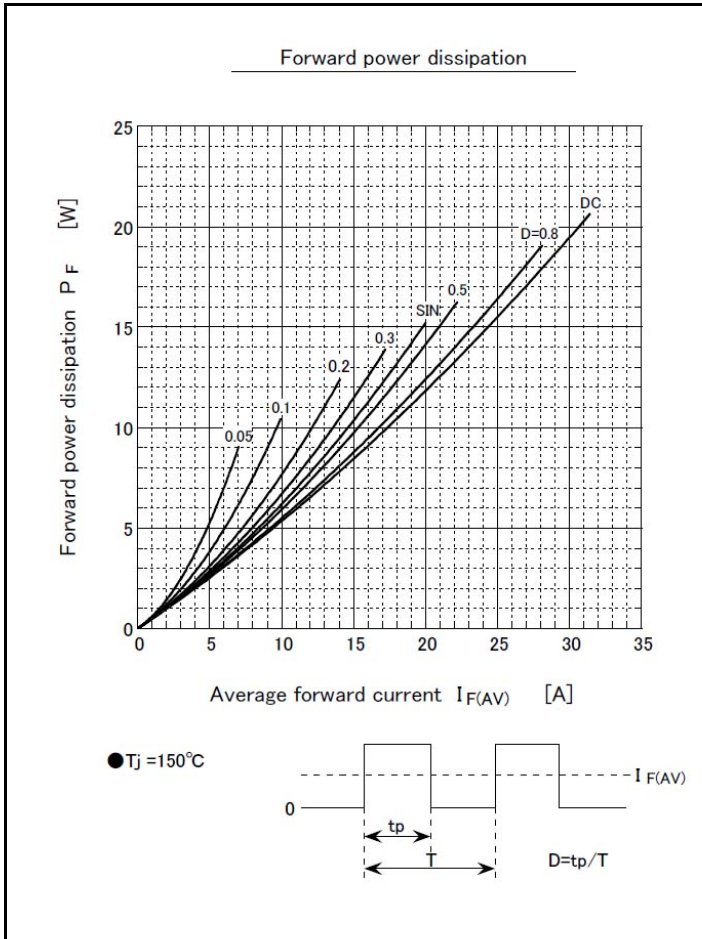
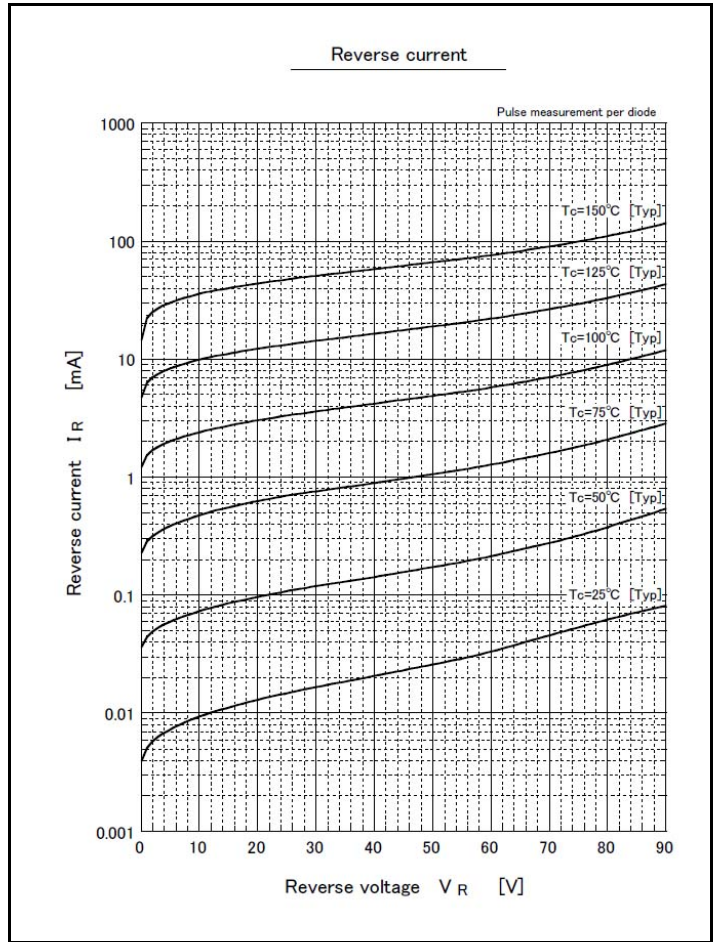
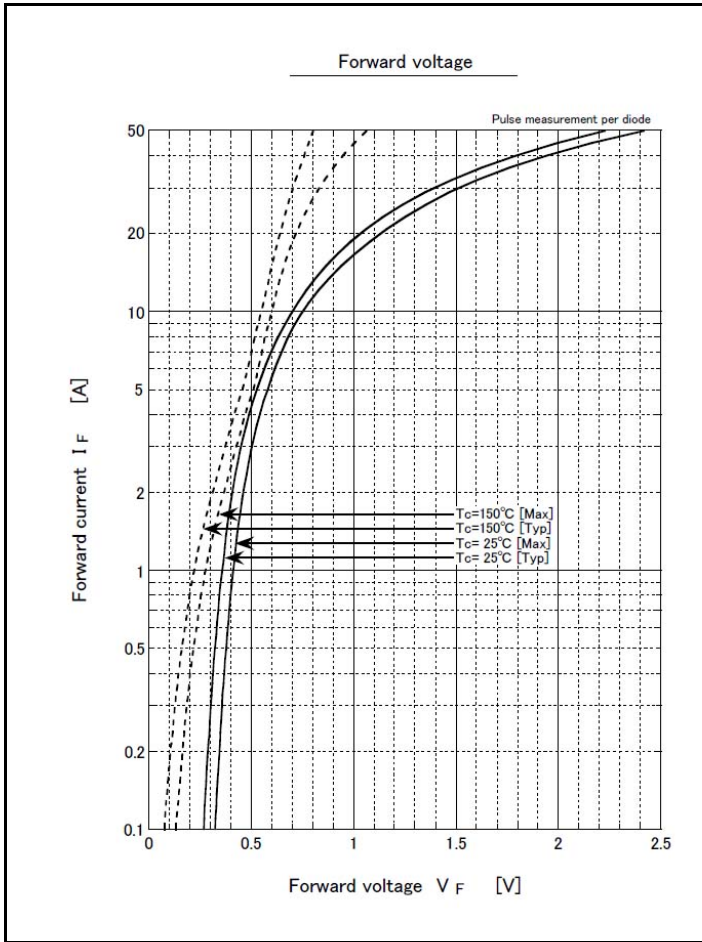
※ : See the original Specifications

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

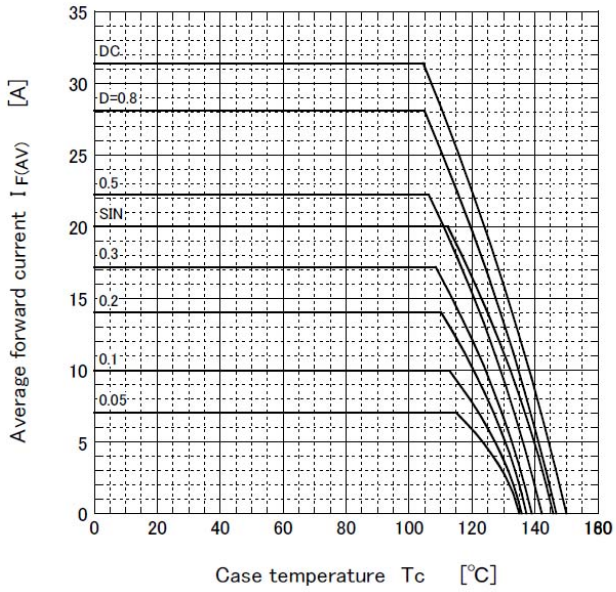
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10A, Pulse measurement, per diode		0.7	0.75	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =90V, Pulse measurement, per diode			1	mA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, per diode		245		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case, With heatsink			2.2	°C/W

\* : See the original Specifications

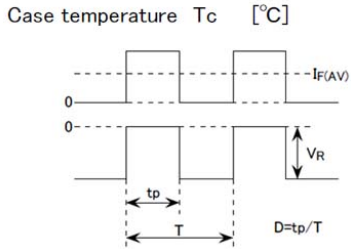
# CHARACTERISTIC DIAGRAMS



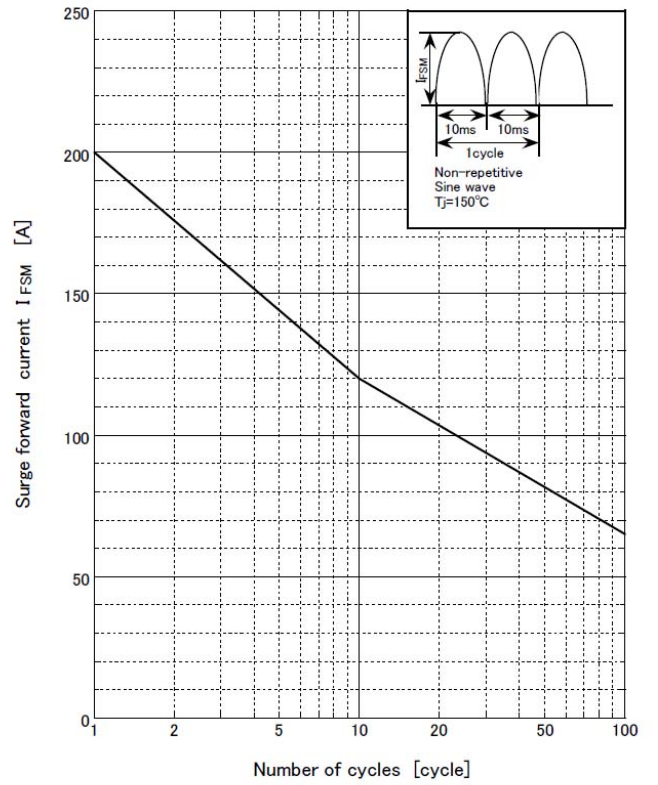
Derating curve



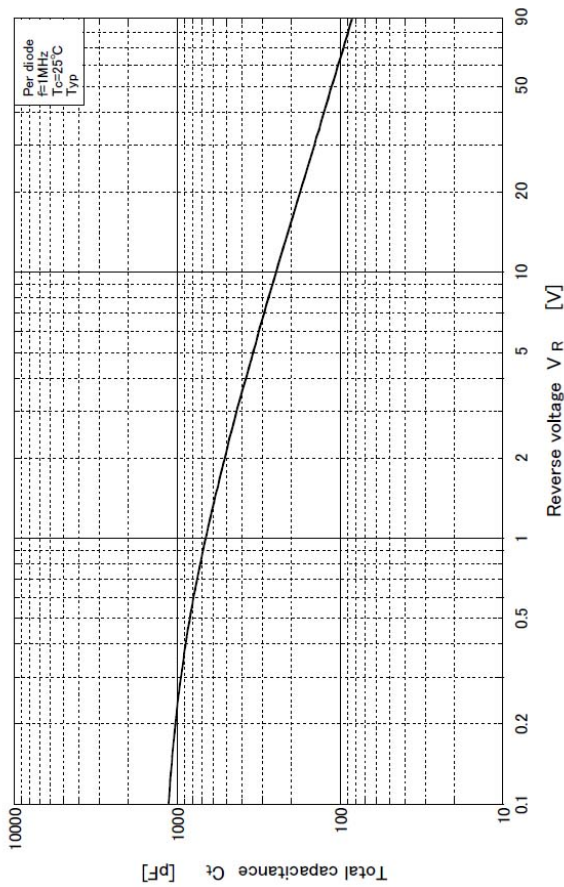
●  $V_R = 45V$   
R-load  
With heatsink



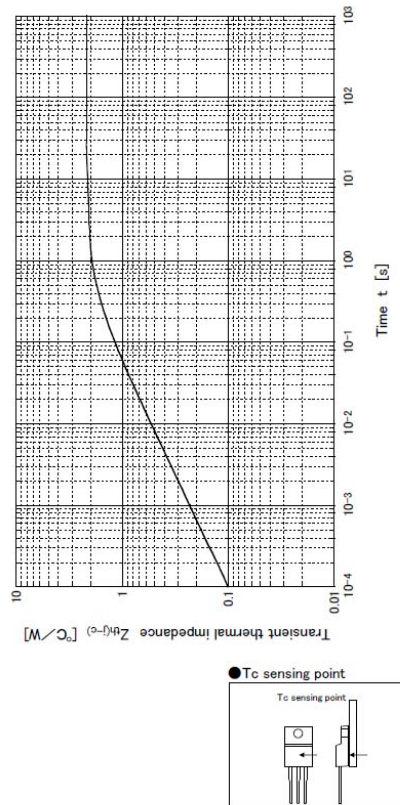
Surge forward current capability



Total capacitance

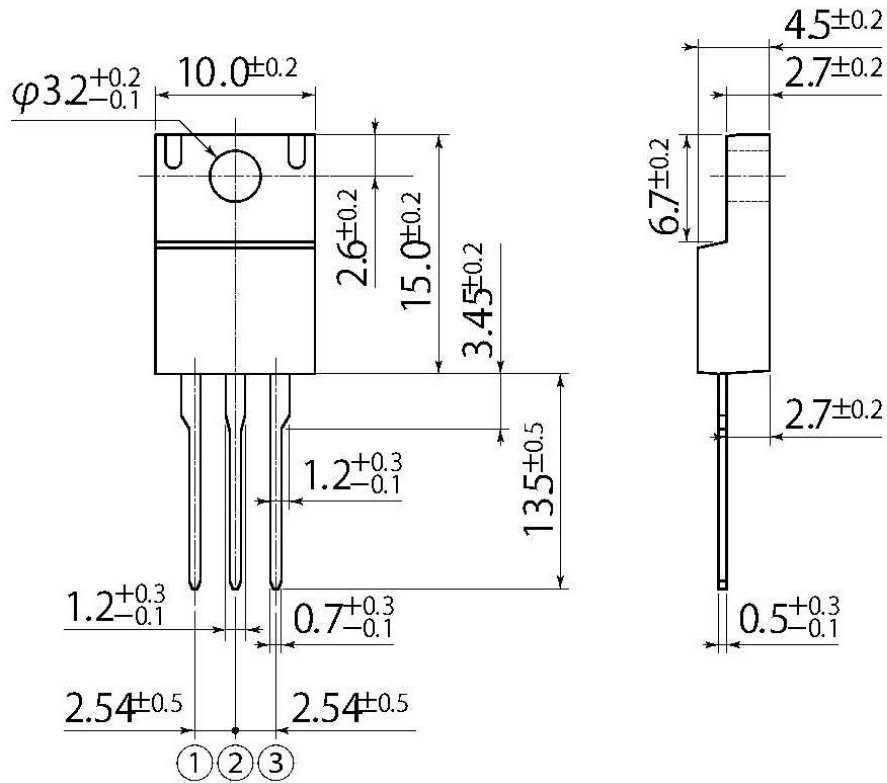


Transient thermal impedance



J9

JEDEC Code	-
JEITA Code	SC-91
House Name	FTO-220G(3pin)



## Notes

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