

# SG20TC10M

## Schottky Barrier Diodes

100V, 20A

### Feature

- High Recovery Speed
- $T_j=175^{\circ}\text{C}$
- Ultra low  $I_R$
- Pb free terminal
- RoHS:Yes

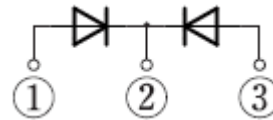
### OUTLINE

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 175	$^{\circ}\text{C}$
Junction temperature	$T_j$		-55 to 175	$^{\circ}\text{C}$
Repetitive peak reverse voltage	$V_{RRM}$		100	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Rating for each diode $I_F(AV)/2$ , With heatsink, $T_c=140^{\circ}\text{C}$	20	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=25^{\circ}\text{C}$	200	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	$\text{N}\cdot\text{m}$

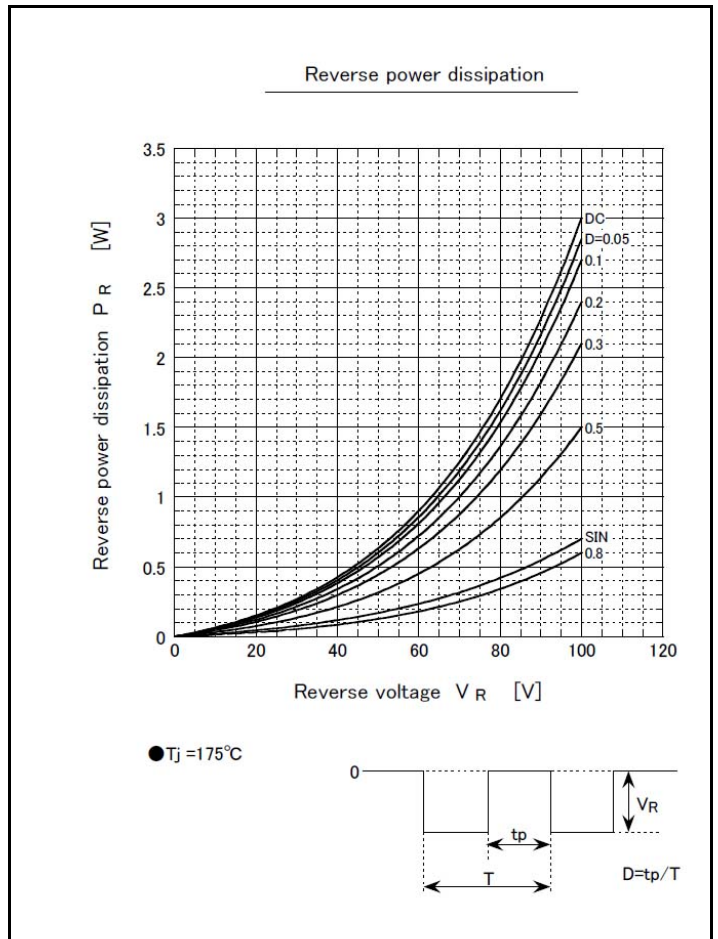
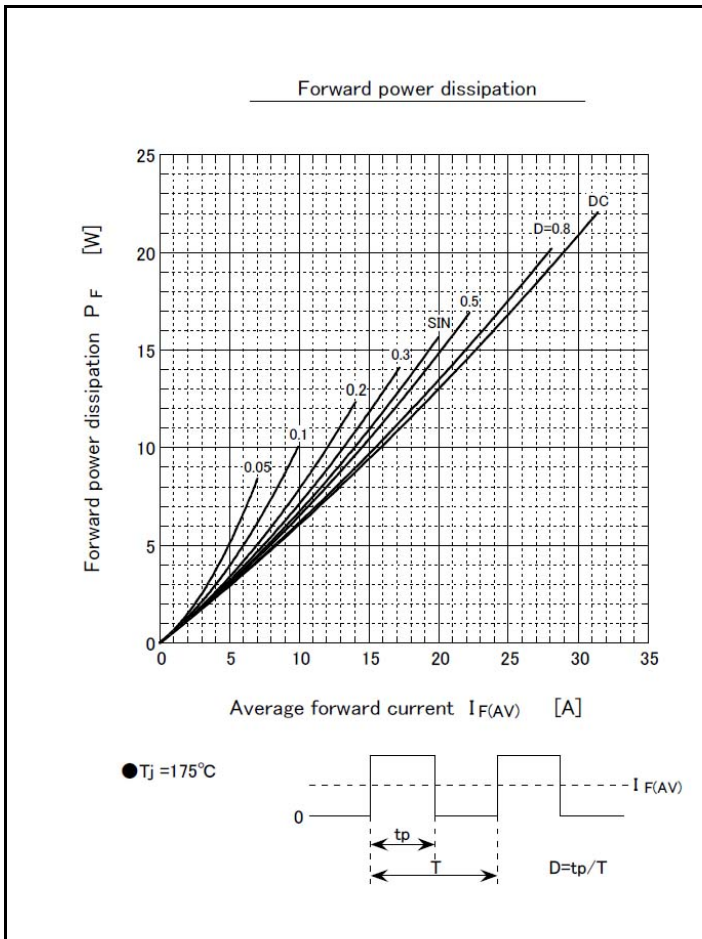
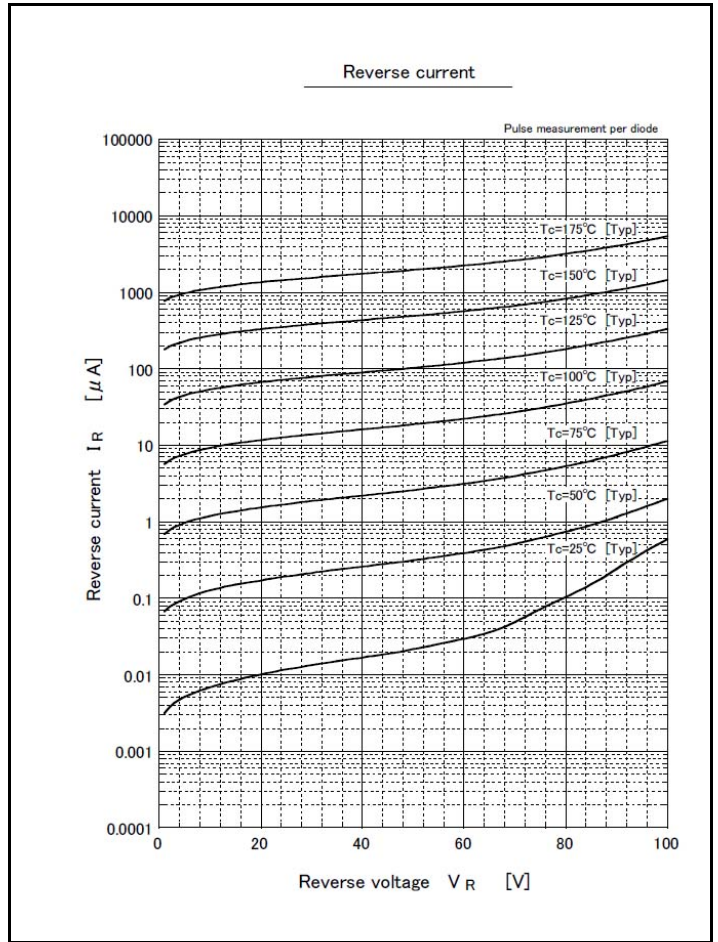
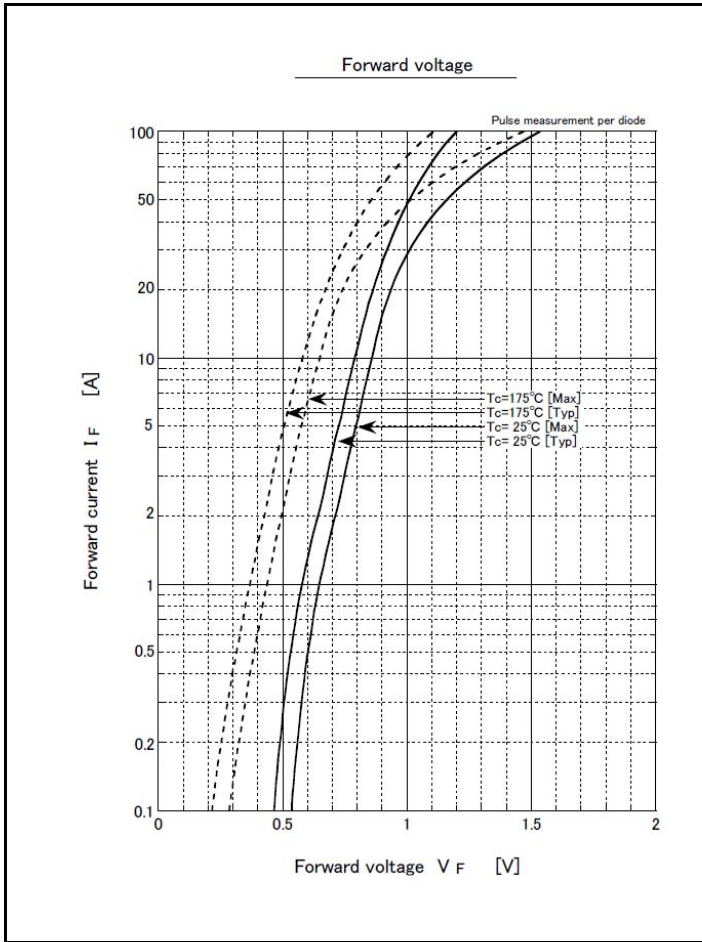
※ :See the original Specifications

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

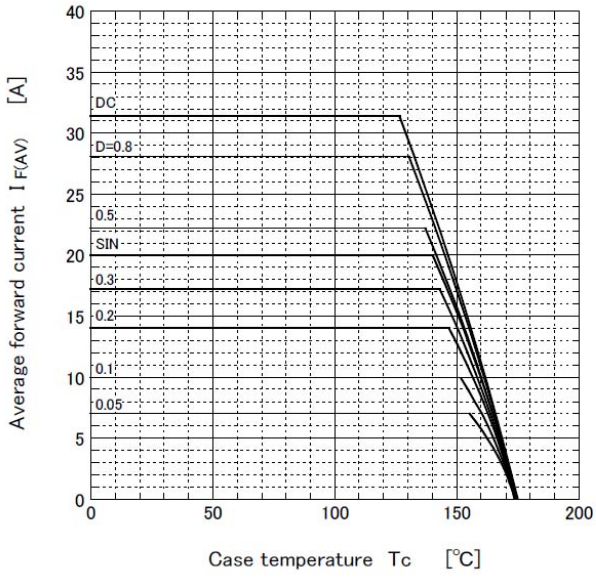
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10A, Pulse measurement, per diode		0.79	0.86	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =100V, Pulse measurement, per diode			0.03	mA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, per diode		185		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case, With heatsink			2.2	°C/W

\* : See the original Specifications

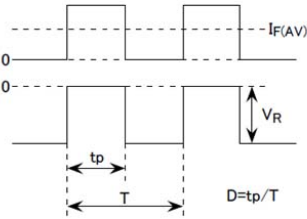
# CHARACTERISTIC DIAGRAMS



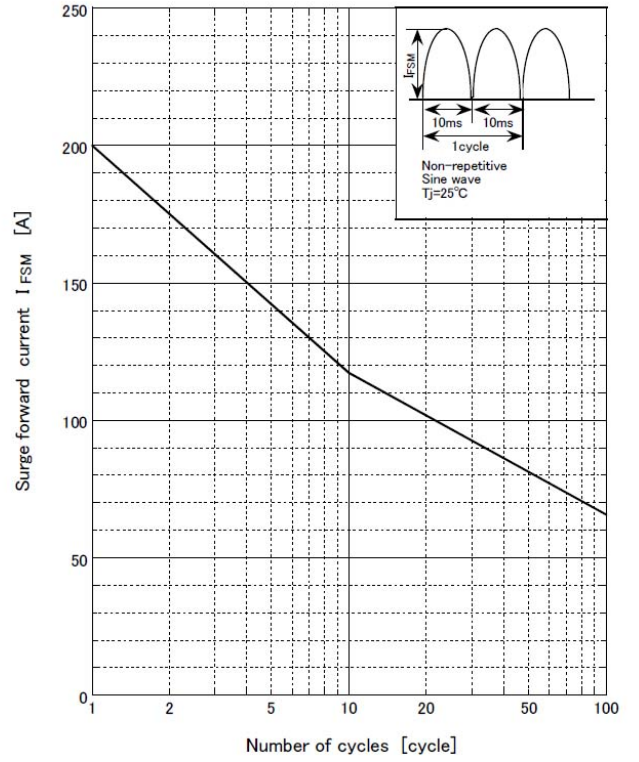
Derating curve



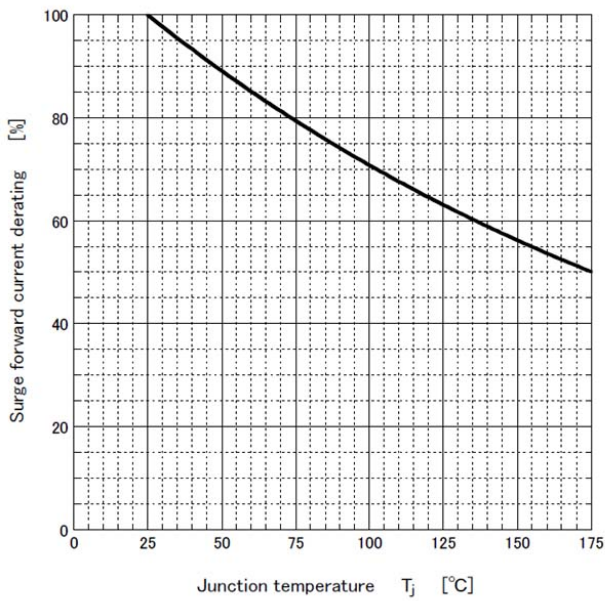
●  $V_R = 50V$   
R-load  
With heatsink



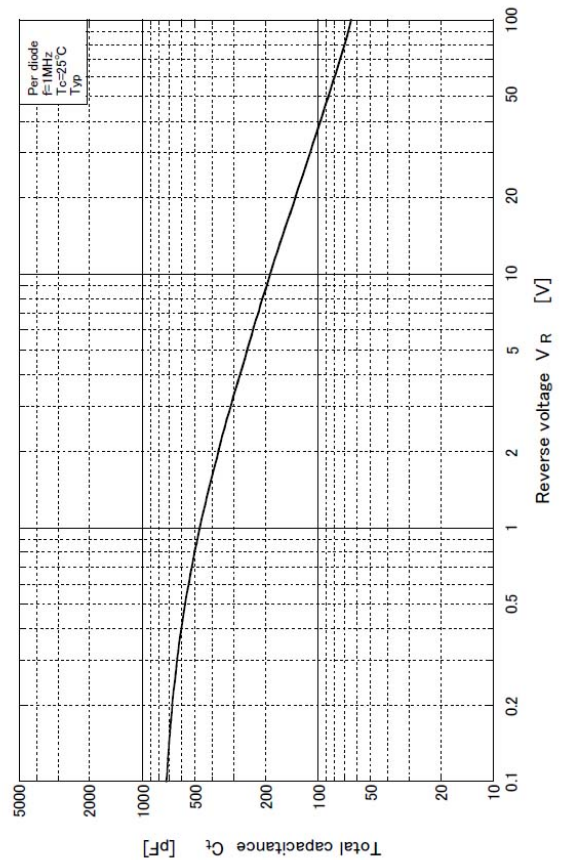
Surge forward current capability



Surge forward current derating vs Junction temperature

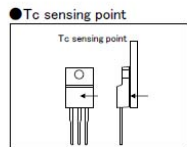
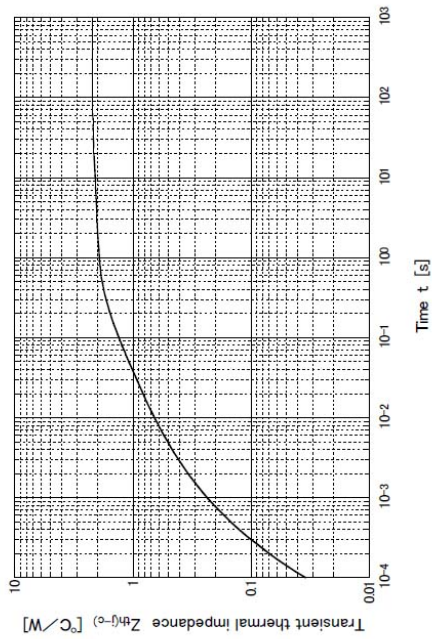


Total capacitance



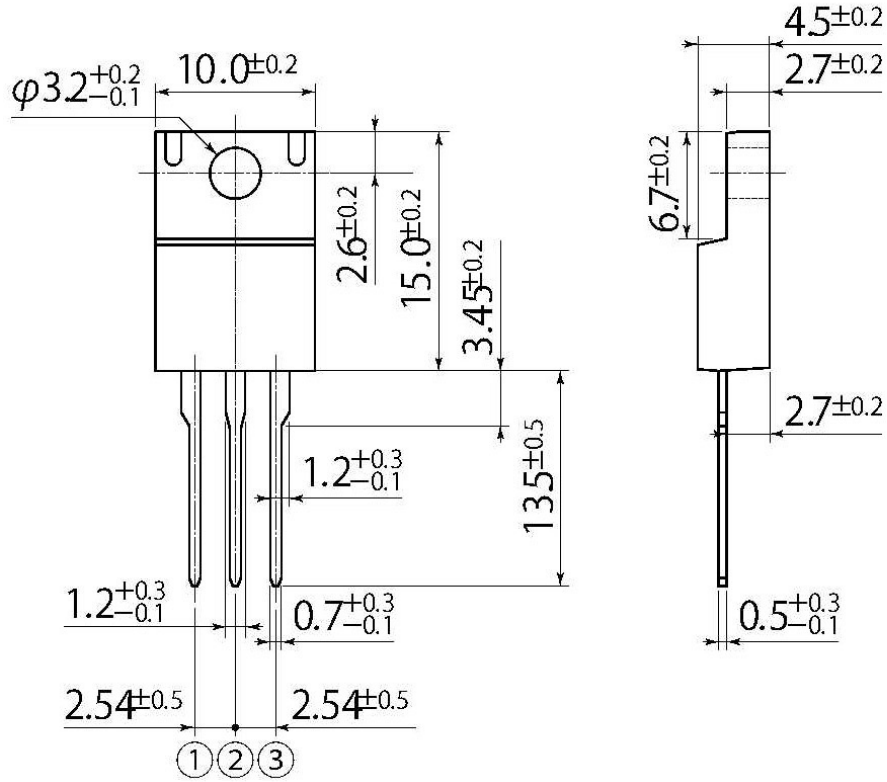


Transient thermal impedance



J9

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



## Notes

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