

# SG30SC4M

## Schottky Barrier Diodes

40V, 30A

### Feature

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

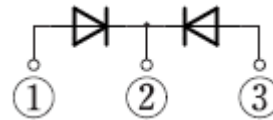
### OUTLINE

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, Rating for each diode $I_F(AV)/2$ , With heatsink, $T_c=101^\circ\text{C}$	30	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive, 1cycle, Peak value, $T_j=25^\circ\text{C}$	300	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

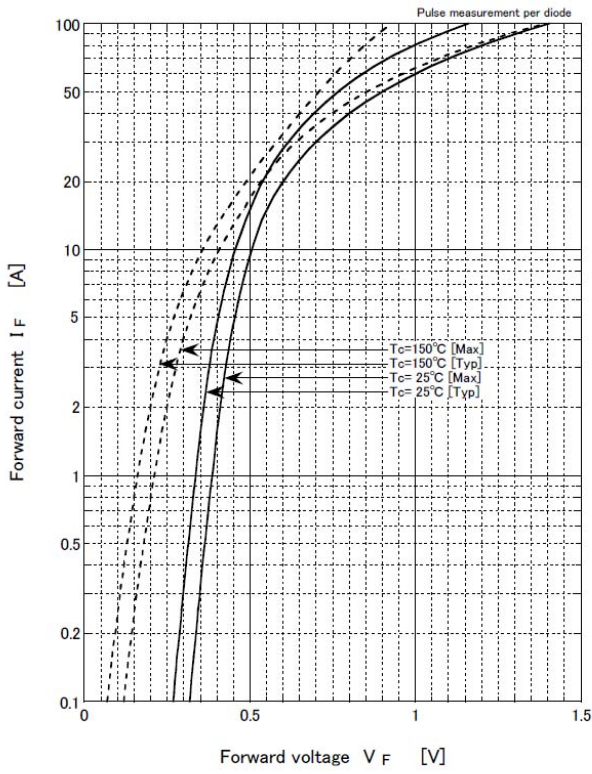
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =15A, Pulse measurement, per diode		0.5	0.55	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =40V, Pulse measurement, per diode			1.5	mA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, per diode		415		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case, With heatsink			2.2	°C/W

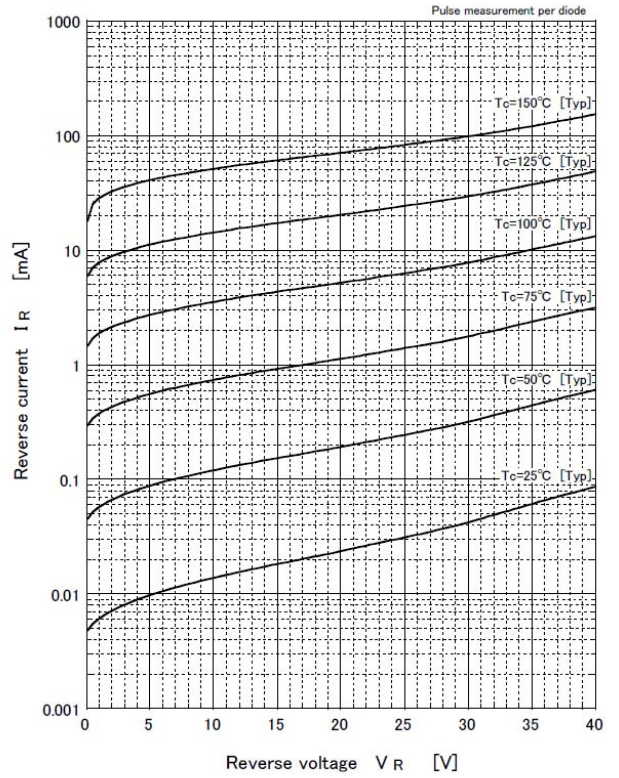
\* : See the original Specifications

# CHARACTERISTIC DIAGRAMS

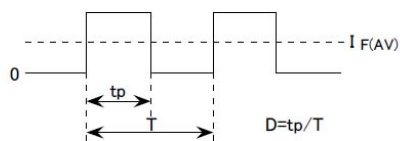
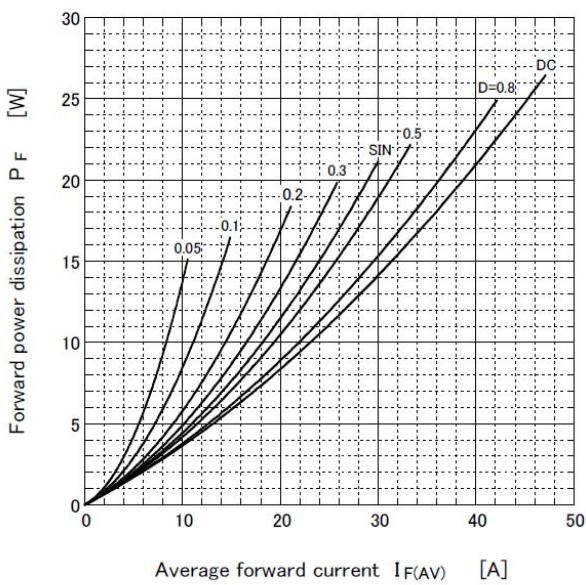
Forward voltage



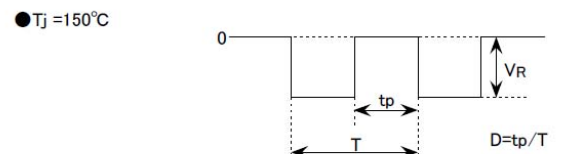
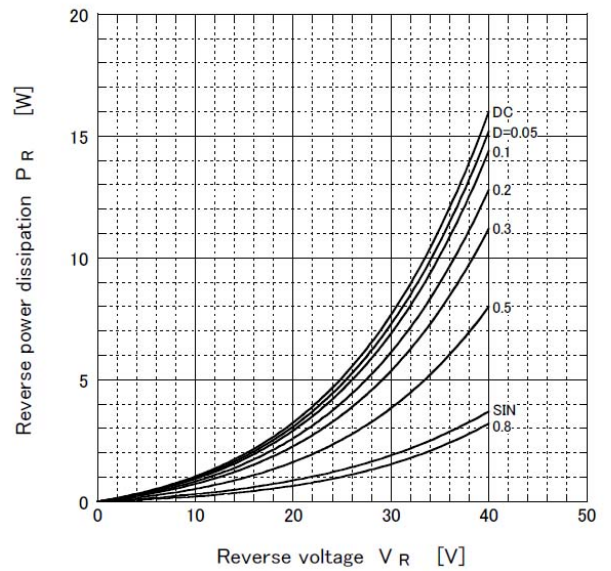
Reverse current



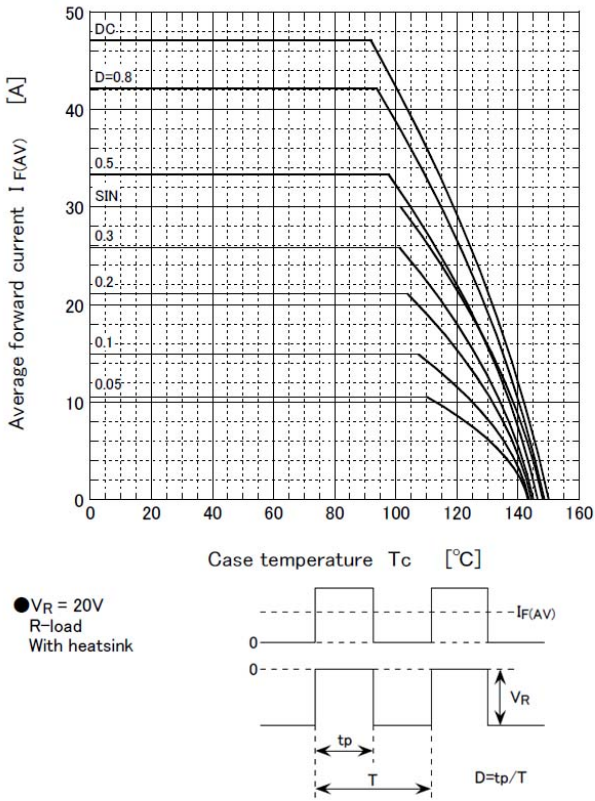
Forward power dissipation



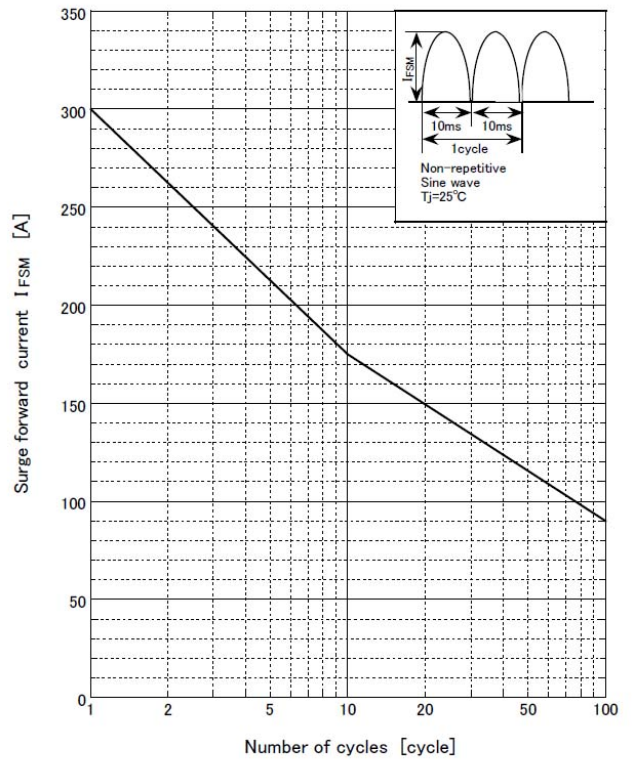
Reverse power dissipation



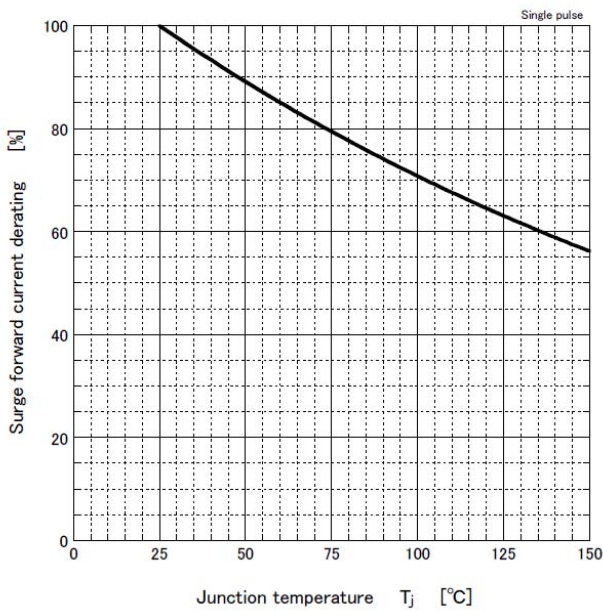
Derating curve



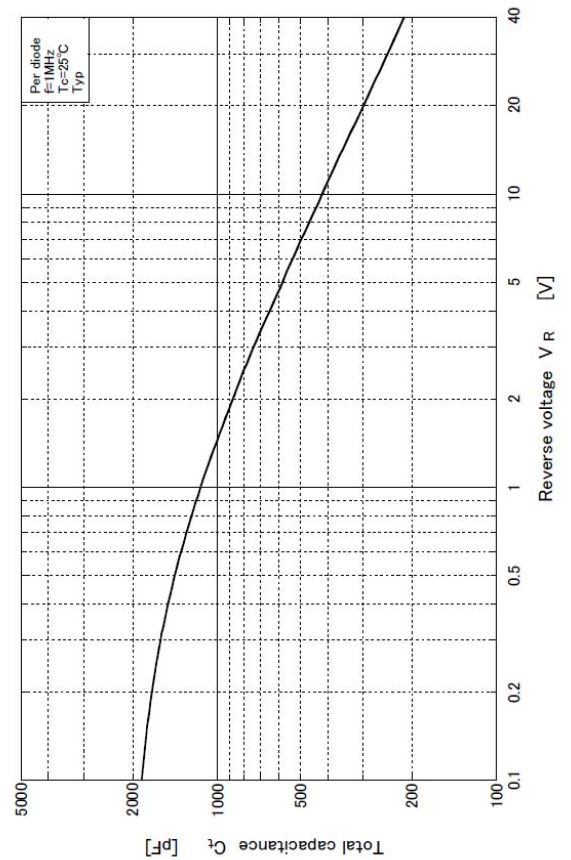
Surge forward current capability



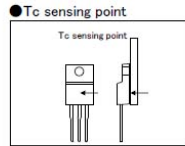
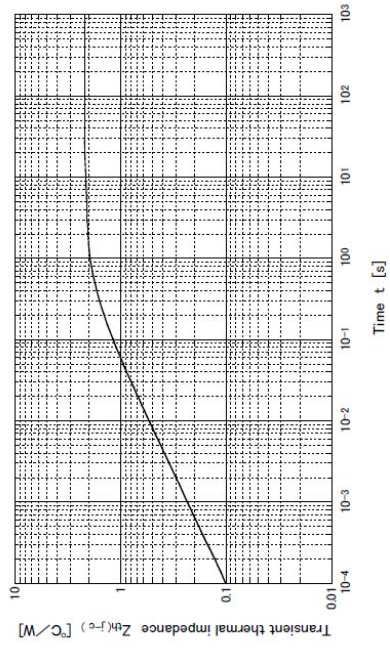
Surge forward current derating vs Junction temperature



Total capacitance

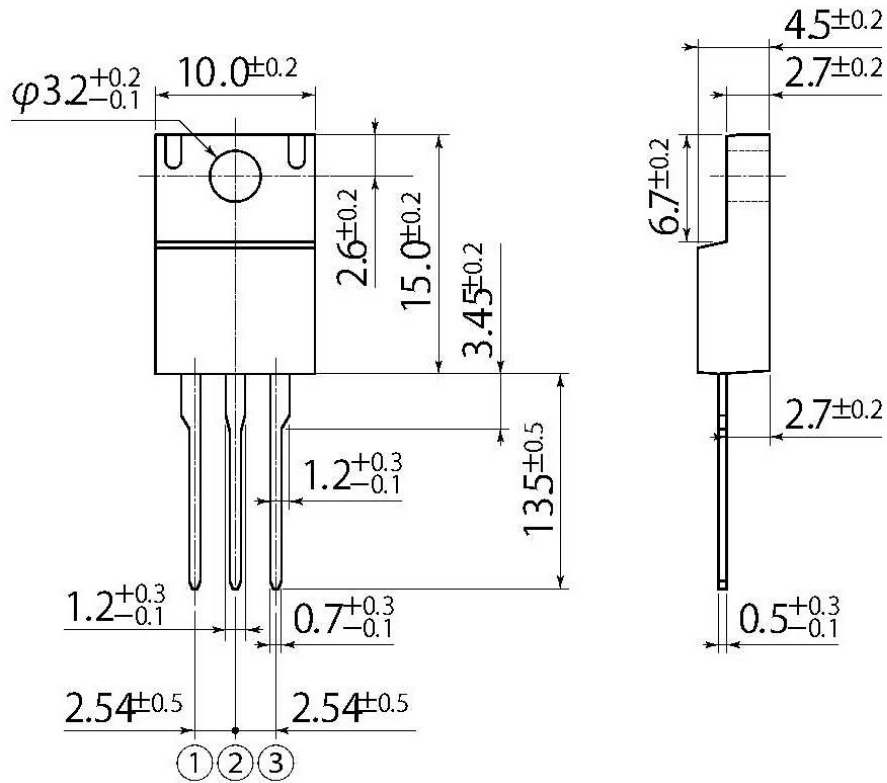


Transient thermal impedance



J9

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



## Notes

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