

SG30TC10M

Schottky Barrier Diodes

100V, 30A

Feature

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

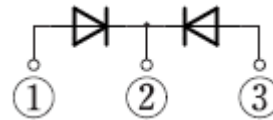
OUTLINE

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, $T_c=126^{\circ}\text{C}$	30	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, 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	$\text{N}\cdot\text{m}$

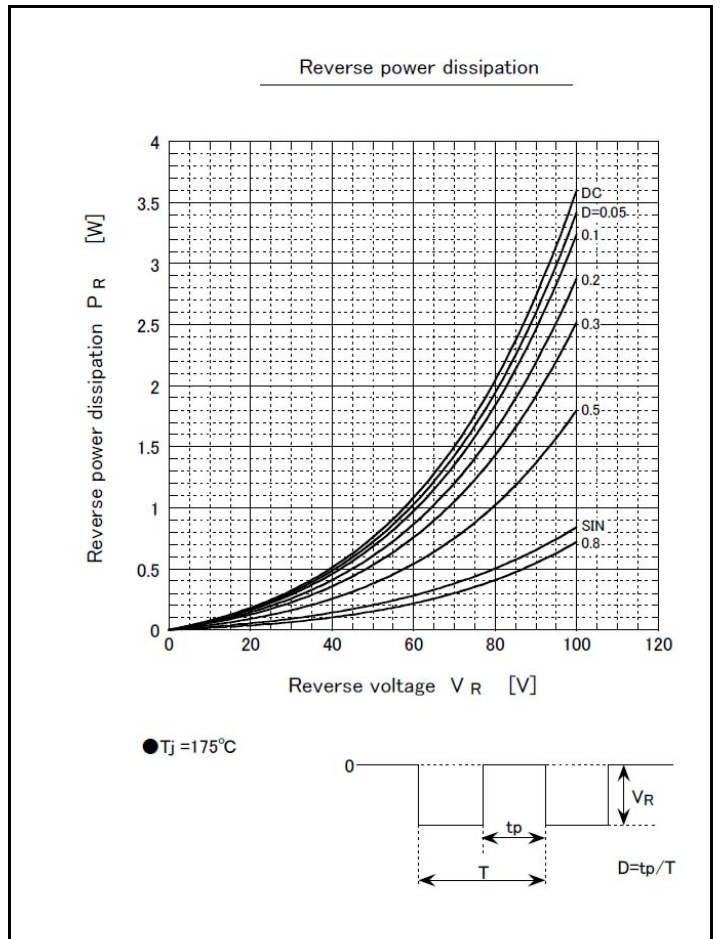
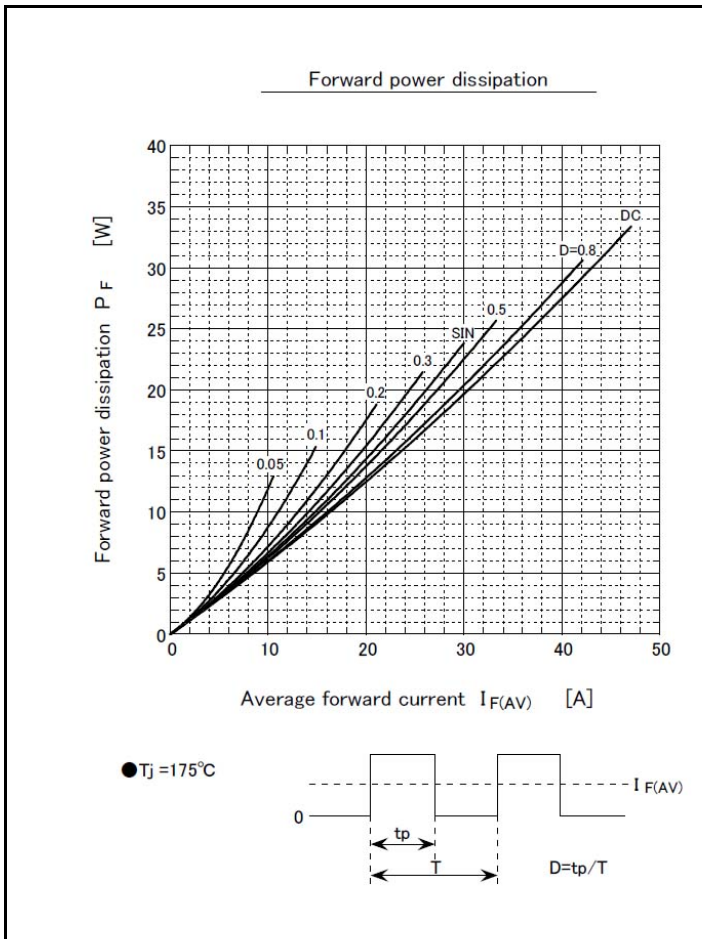
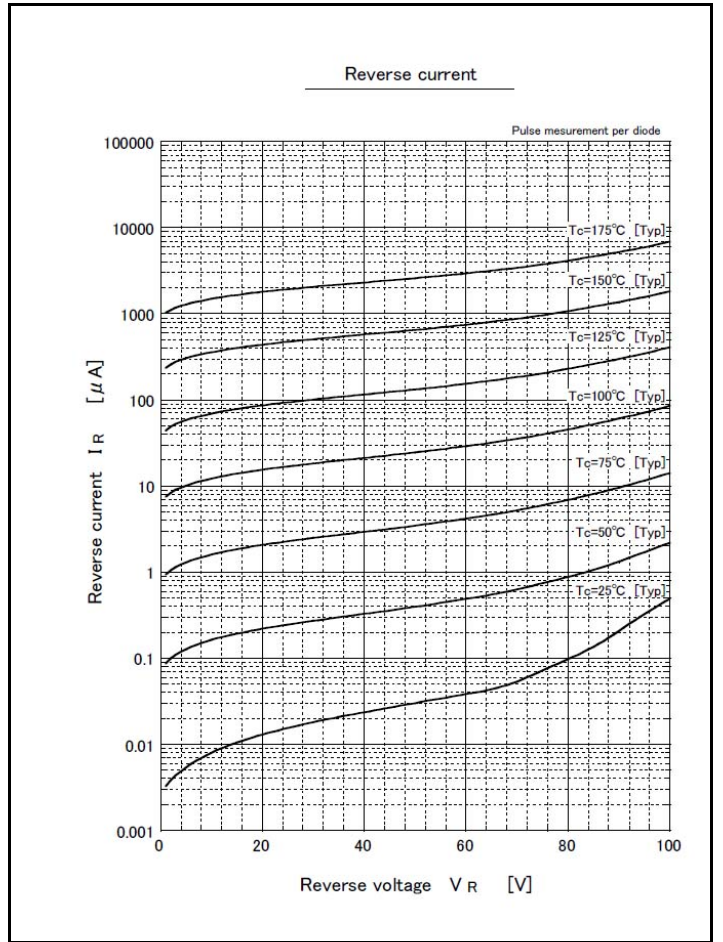
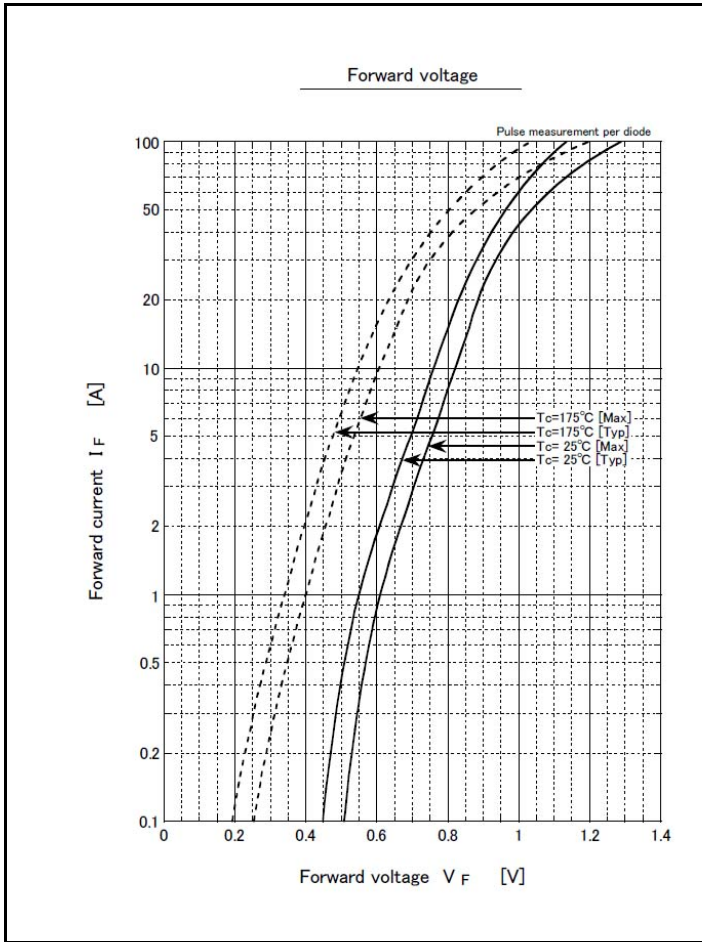
※ :See the original Specifications

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

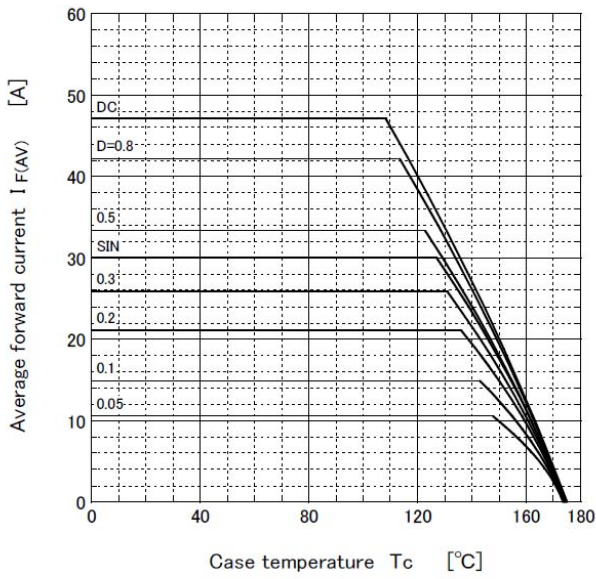
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =15A, Pulse measurement, per diode		0.8	0.86	V
Reverse current	I _R	V _R =100V, Pulse measurement, per diode			0.04	mA
Total capacitance	C _t	f=1MHz, V _R =10V, per diode		242		pF
Thermal resistance	R _{th(j-c)}	Junction to case, With heatsink			2	°C/W

* : See the original Specifications

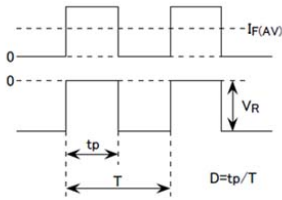
CHARACTERISTIC DIAGRAMS



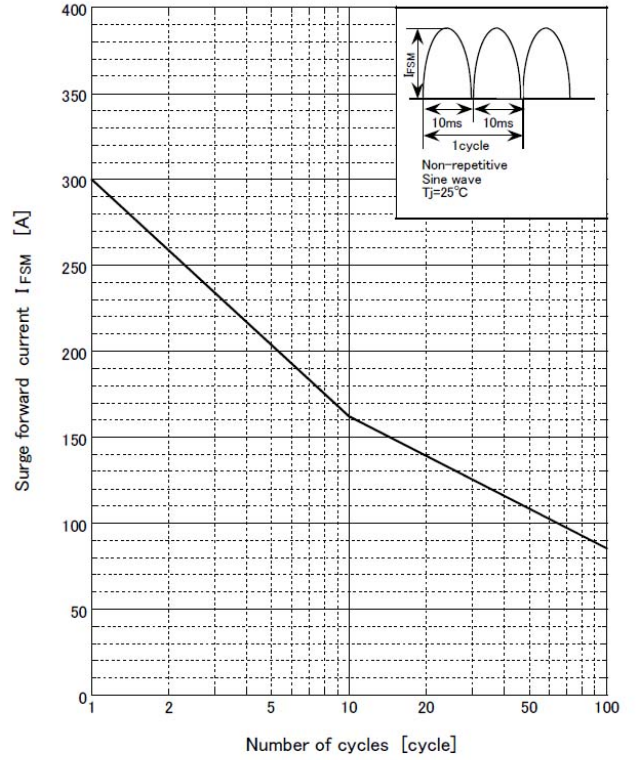
Derating curve



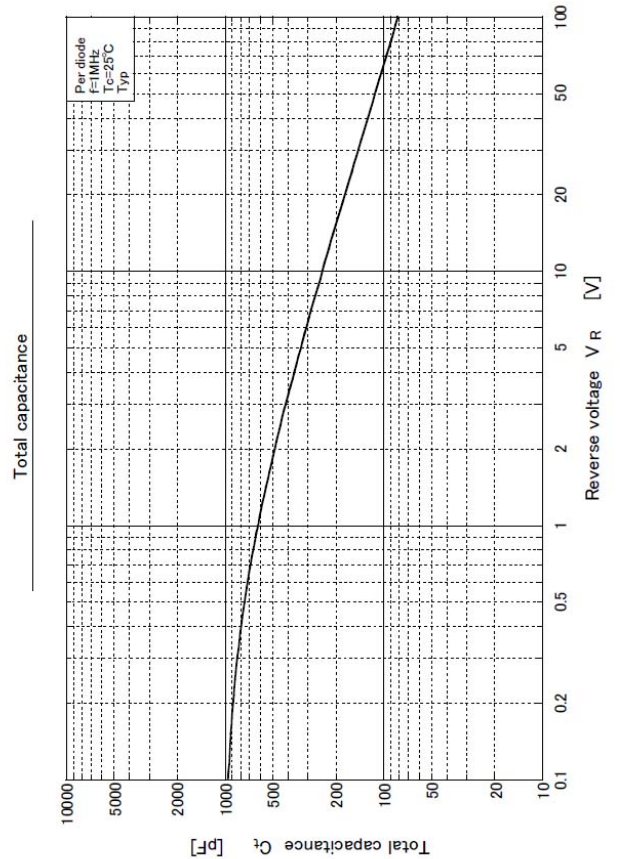
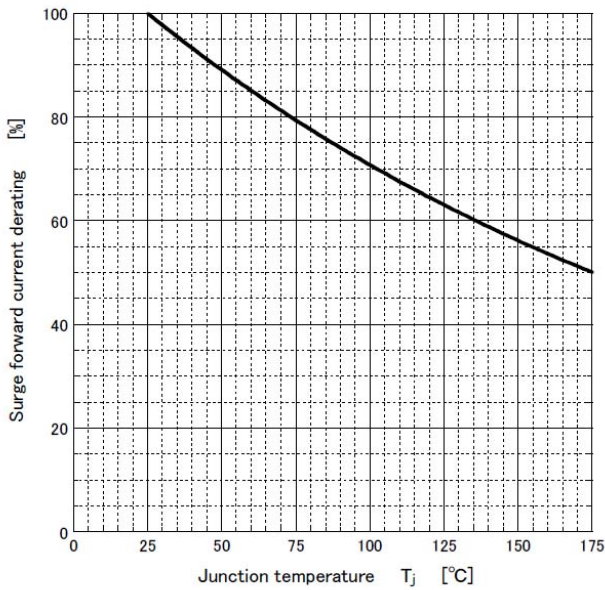
● $V_R = 50V$
R-load
With heatsink



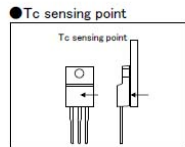
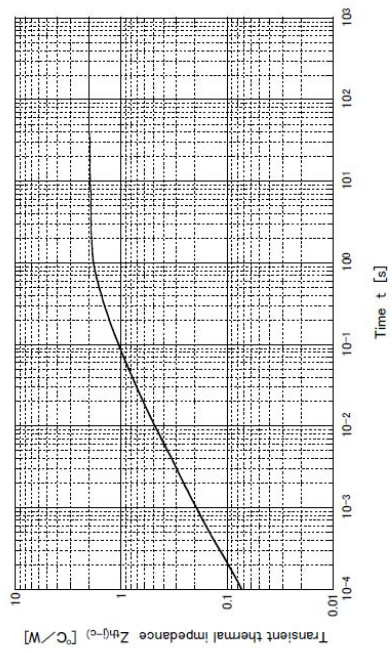
Surge forward current capability



Surge forward current derating vs Junction temperature



Transient thermal impedance



J9

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

