ShinDengen

SG40TC10M

Schottky Barrier Diodes
100V, 40A

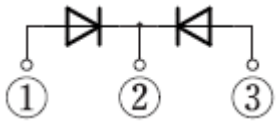
Feature

- High Recovery Speed
- Tj=175℃
- 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 : Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 175	℃
Junction temperature	Tj		-55 to 175	℃
Repetitive peak reverse voltage	V_{RRM}		100	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, With heatsink, Tc=116℃	40	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25℃	350	A
Dielectric strength	Vdis	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

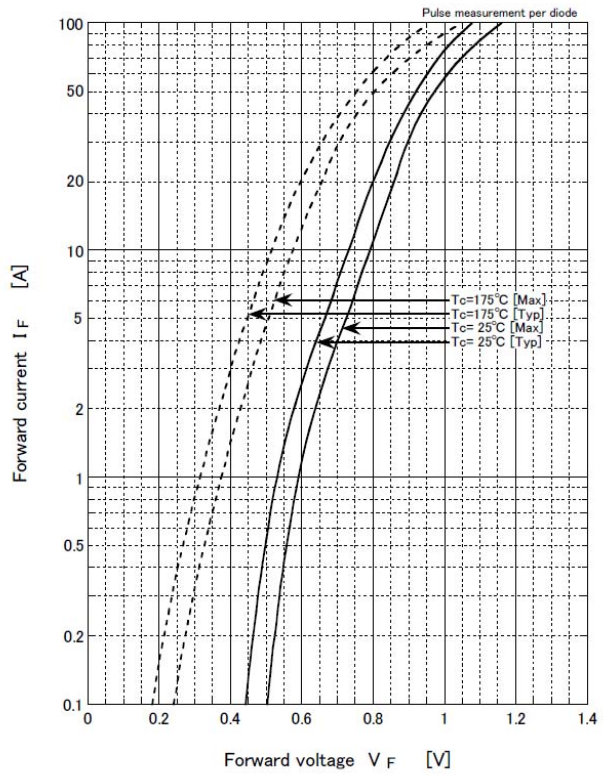
Electrical Characteristics (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=20A, Pulse measurement, per diode		0.8	0.86	V
Reverse current	I_R	VR=100V, Pulse measurement, per diode			0.06	mA
Total capacitance	Ct	f=1MHz, VR=10V, per diode		362		pF
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			1.8	℃/W

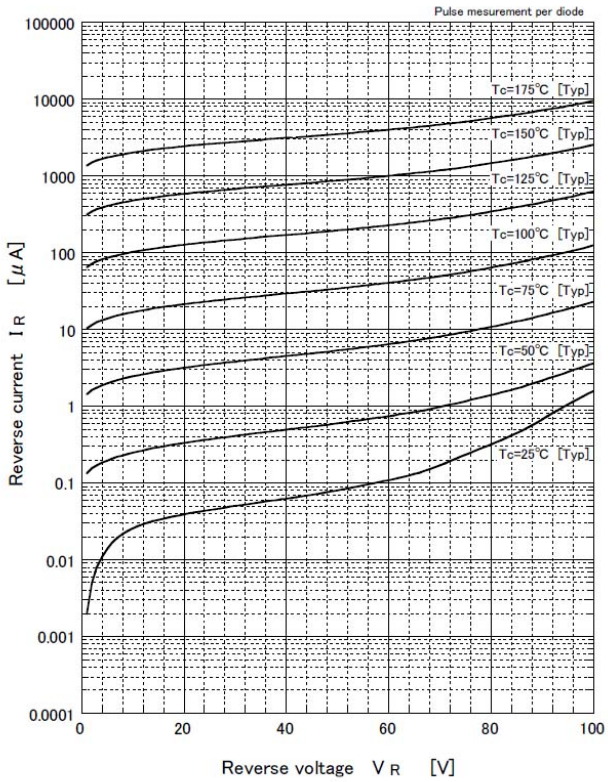
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

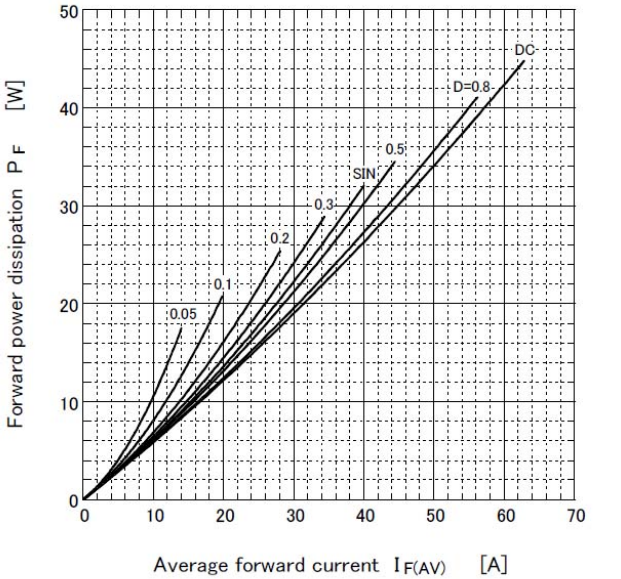
Forward voltage

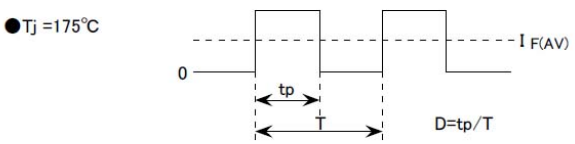


Reverse current

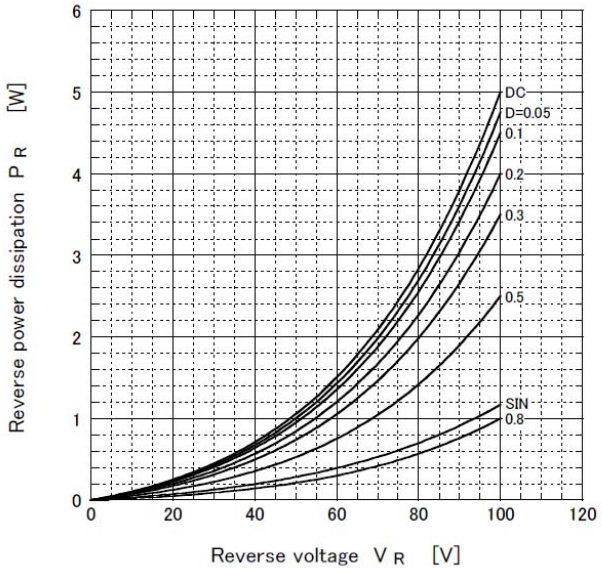


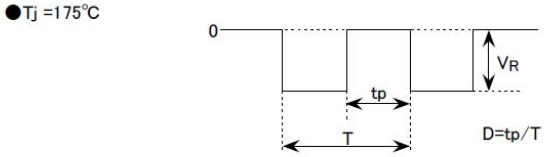
Forward power dissipation



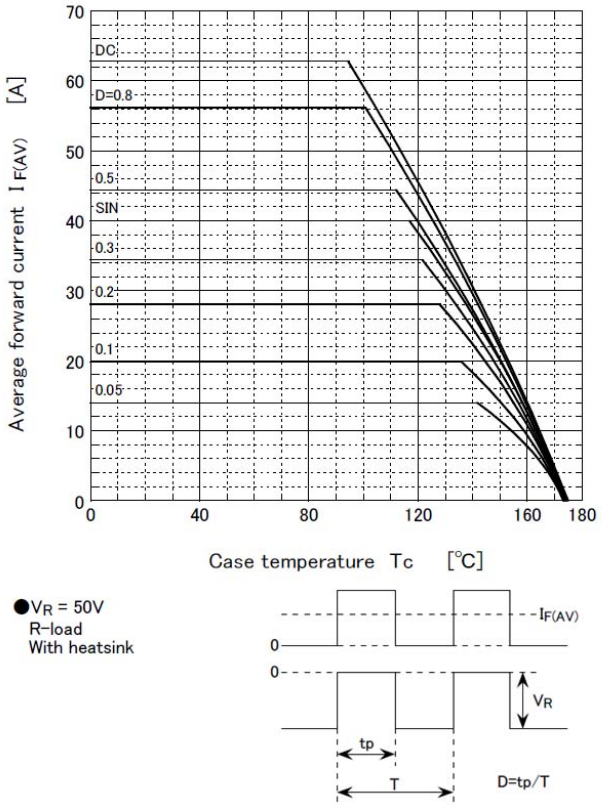


Reverse power dissipation

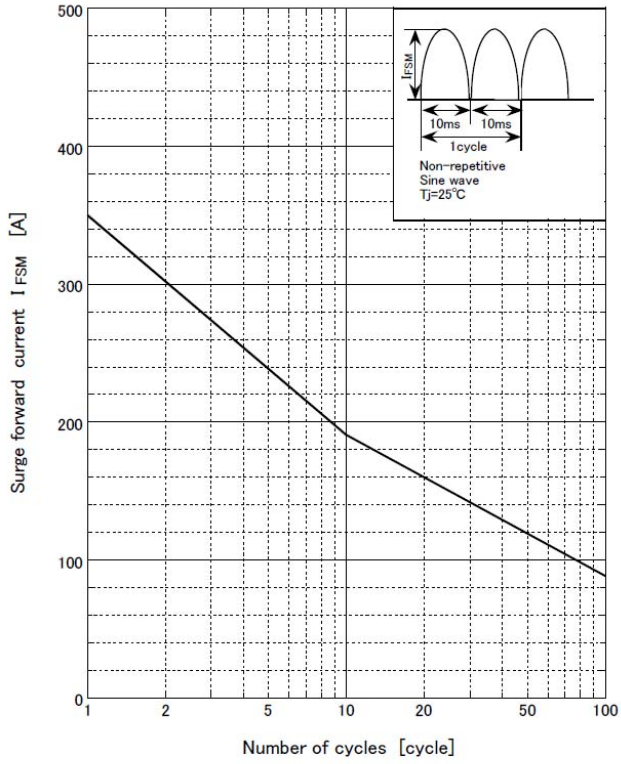




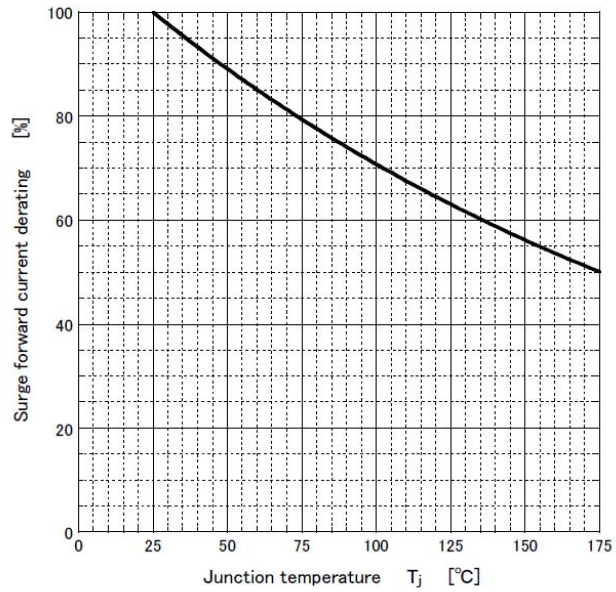
Derating curve



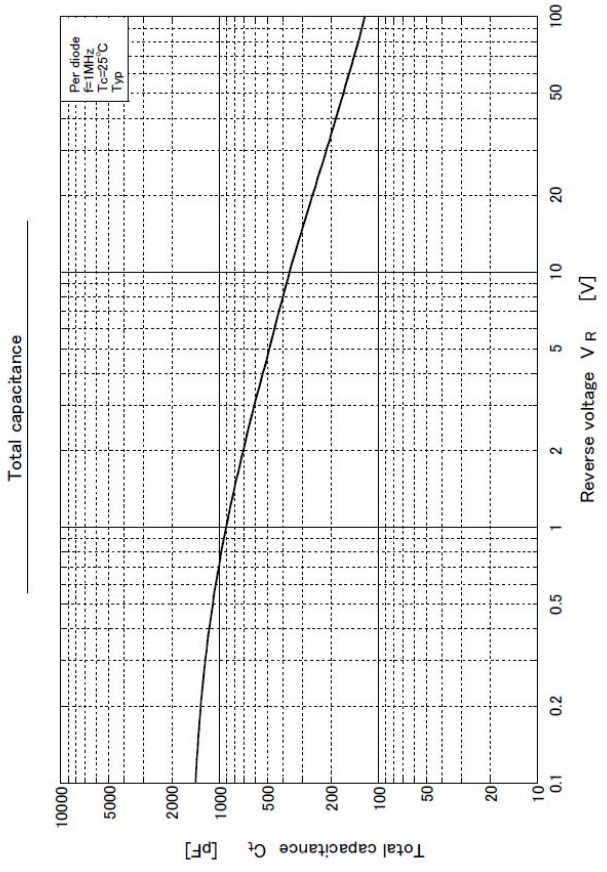
Surge forward current capability

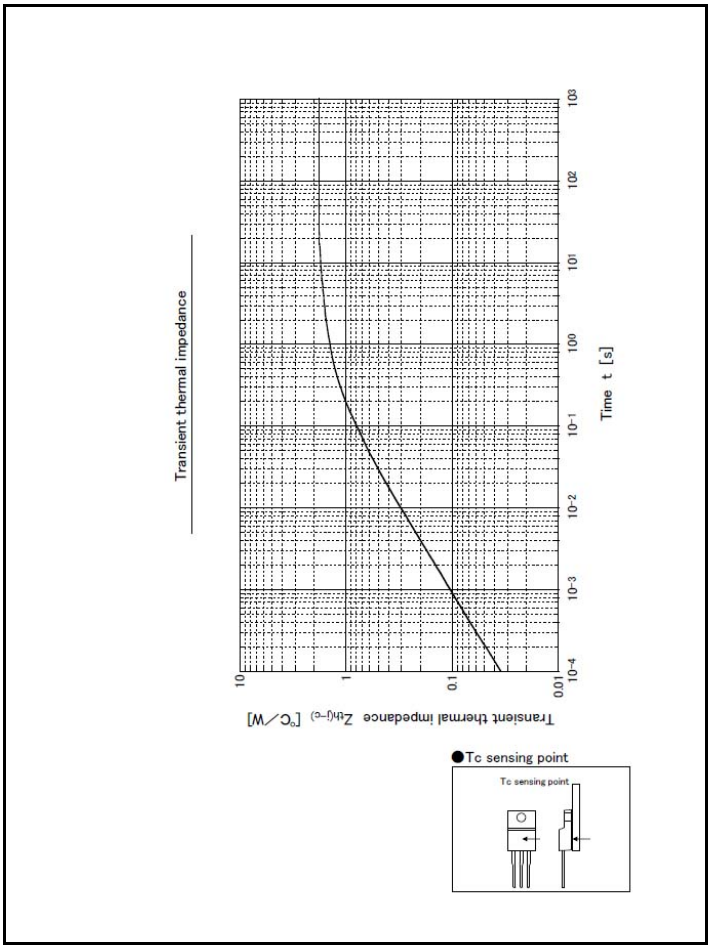


Surge forward current derating
vs Junction temperature



Total capacitance



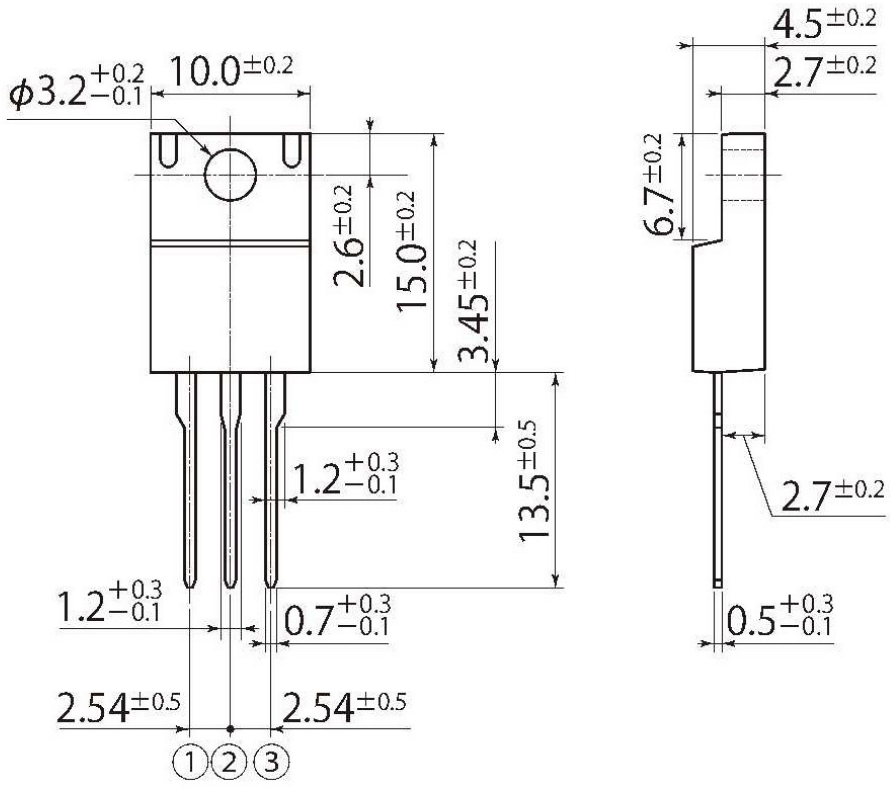

Transient thermal impedance
Transient thermal impedance Zth(j-c) [°C/W]
10
1
0.1
0.01
10-4
10-3
10-2
10-1
100
101
102
103
Time t [s]
●Tc sensing point
Tc sensing point

Outline Dimensions

unit:mm

J9

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



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