ShinDengen

SG40TC12M

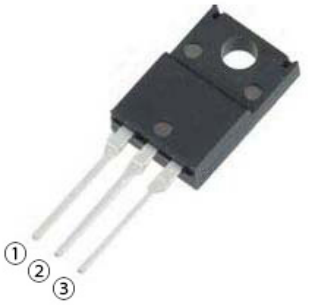
Schottky Barrier Diodes
120V, 40A

Feature

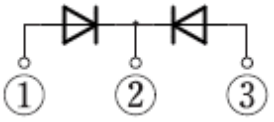
- High Recovery Speed
- Tj=175°C
- Low I_R
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): FTO-220G
Package (JEITA Code): SC-91



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 175	°C
Junction temperature	Tj		175	°C
Repetitive peak reverse voltage	V_{RRM}		120	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, Tc=112°C	40	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	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

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

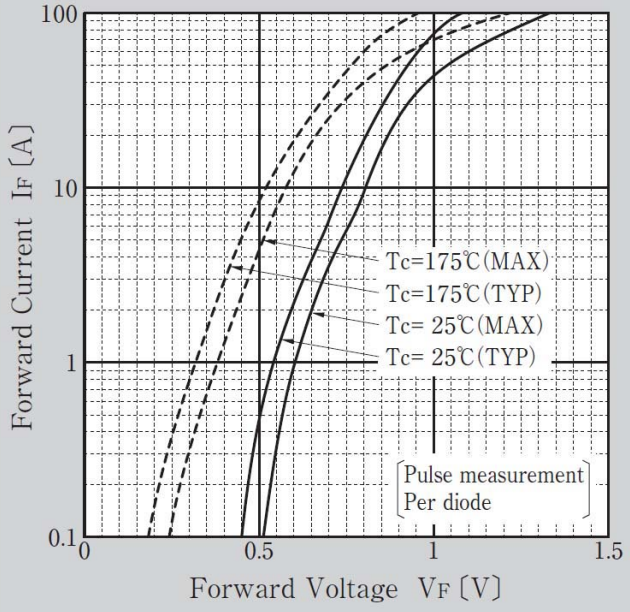
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=20A, Pulse measurement, per diode		0.81	0.87	V
Reverse current	I_R	VR=120V, Pulse measurement, per diode			0.06	mA
Total capacitance	Ct	f=1MHz, VR=10V, per diode		336		pF
Thermal resistance	Rth(j-c)	Junction to case			1.8	°C/W

※ :See the original Specifications

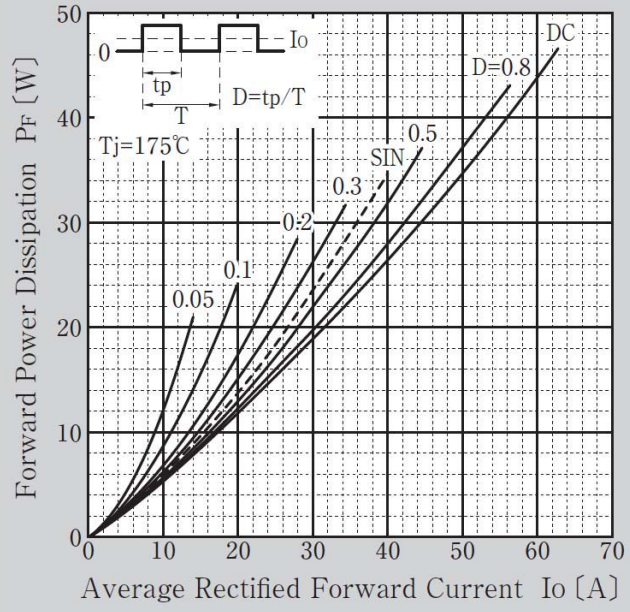
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CHARACTERISTIC DIAGRAMS

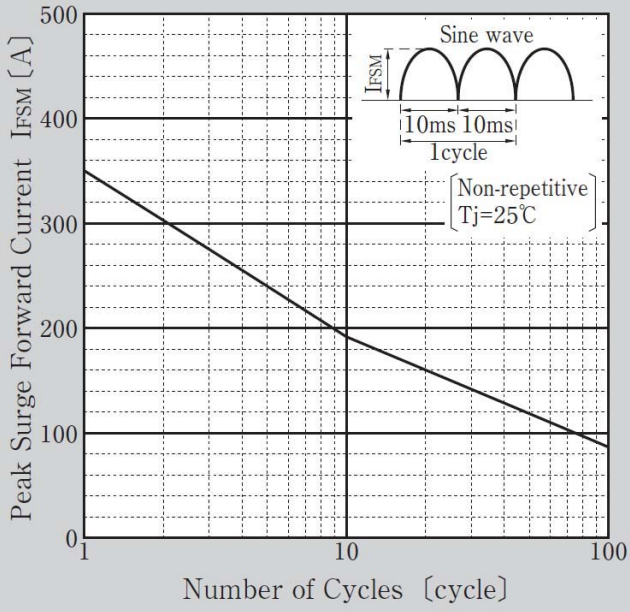
Forward Voltage



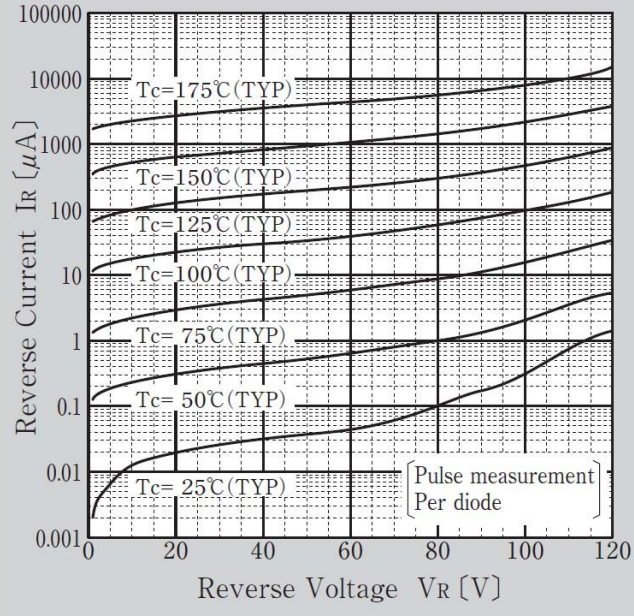
Forward Power Dissipation



Peak Surge Forward Current Capability

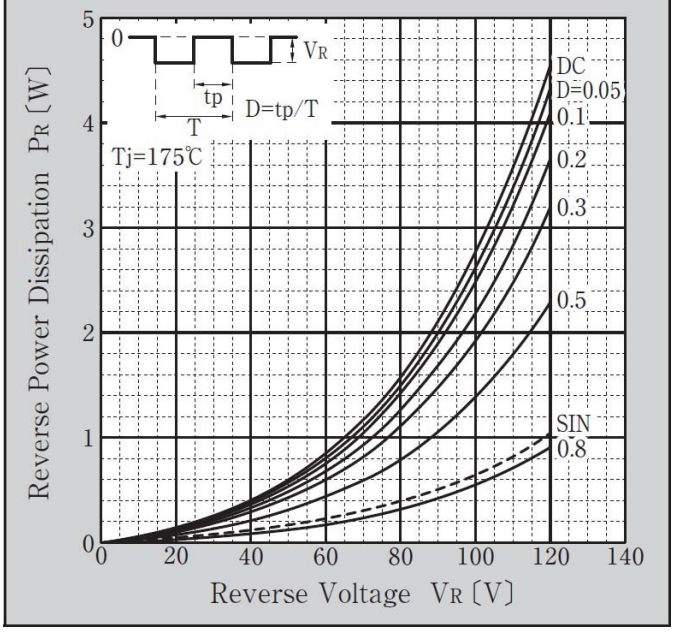


Reverse Current

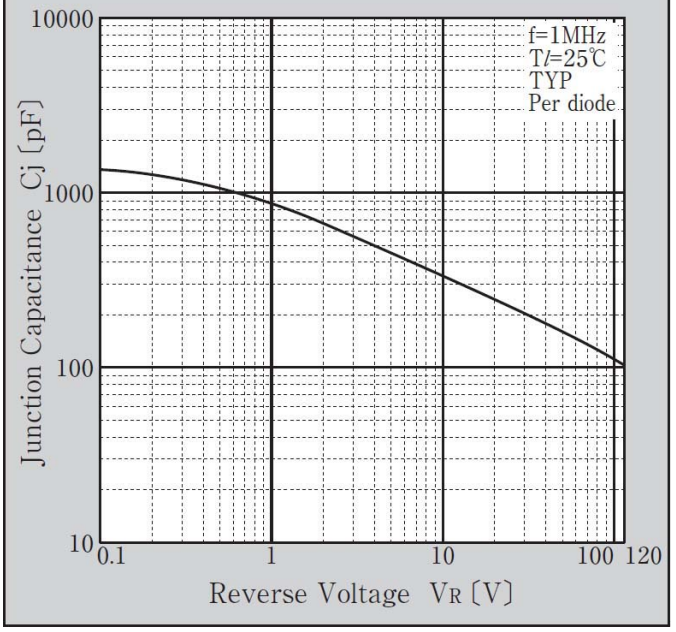


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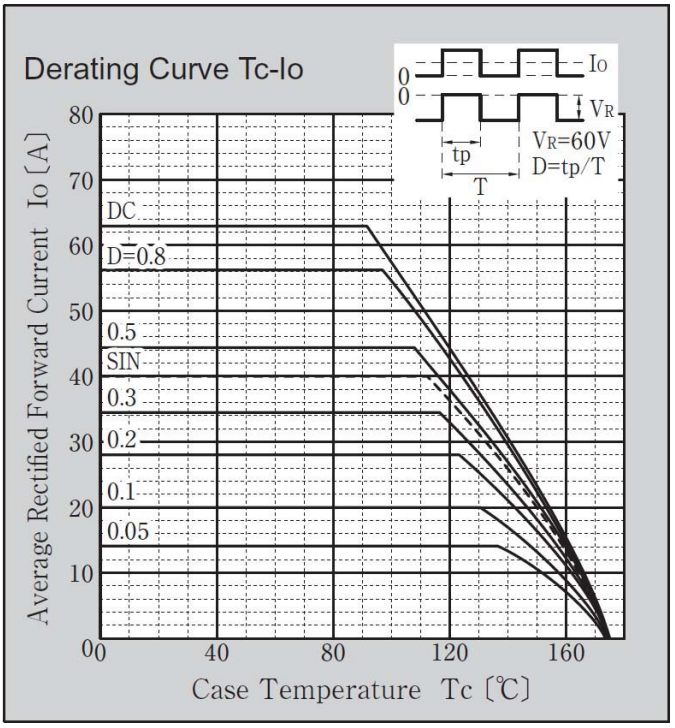
Reverse Power Dissipation



Junction Capacitance



Derating Curve Tc-Io



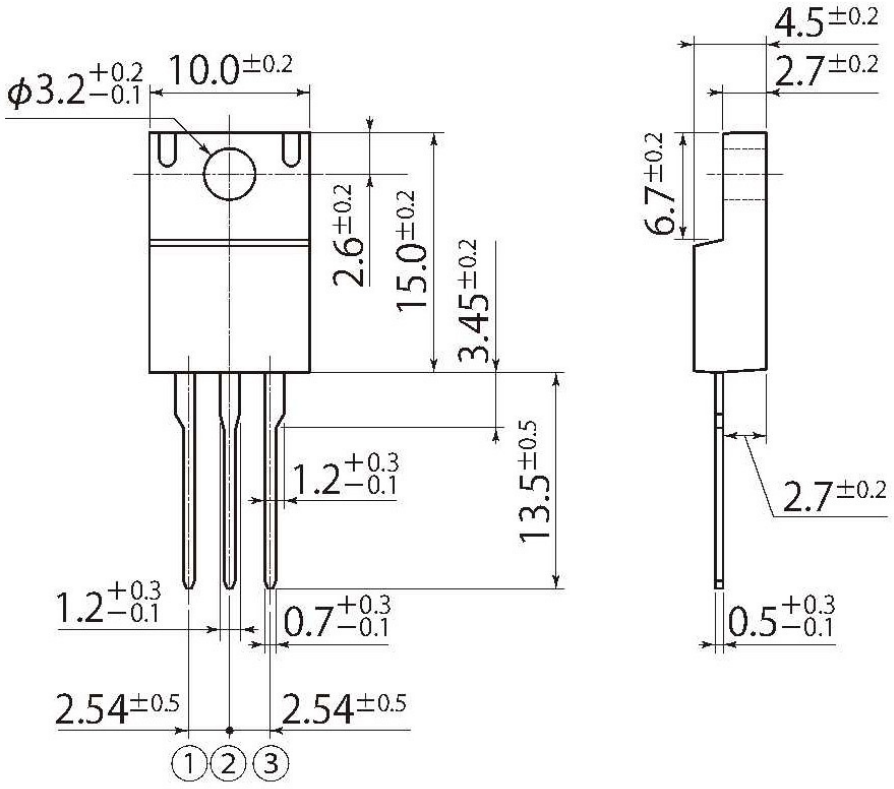
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Outline Dimensions

unit:mm

J9

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



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Notes

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   Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.
   【Specific applications】
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