

SG40TC12M

Schottky Barrier Diodes
120V, 40A

Feature

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

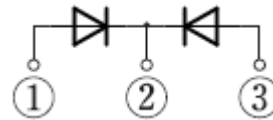
OUTLINE

Package (House Name): FTO-220G

Package (JEITA Code): SC-91



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : $T_c=25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-55 to 175	$^{\circ}\text{C}$
Junction temperature	T_j		175	$^{\circ}\text{C}$
Repetitive peak reverse voltage	V_{RRM}		120	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Rating for each diode $I_F(AV)/2$, $T_c=112^{\circ}\text{C}$	40	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=25^{\circ}\text{C}$	350	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

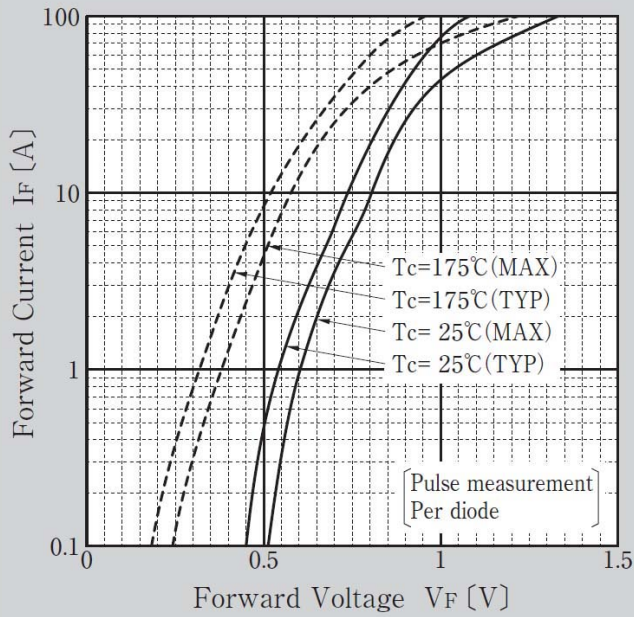
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =20A, Pulse measurement, per diode		0.81	0.87	V
Reverse current	I _R	V _R =120V, Pulse measurement, per diode			0.06	mA
Total capacitance	C _t	f=1MHz, V _R =10V, per diode		336		pF
Thermal resistance	R _{th(j-c)}	Junction to case			1.8	°C/W

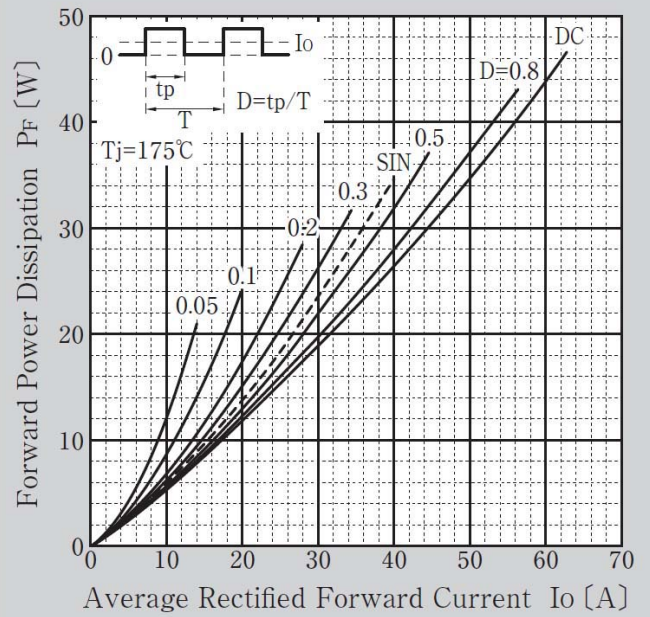
* : See the original Specifications

CHARACTERISTIC DIAGRAMS

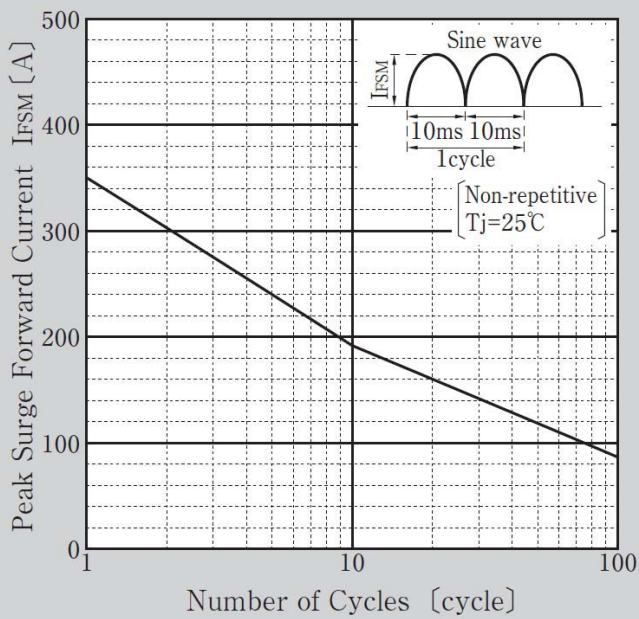
Forward Voltage



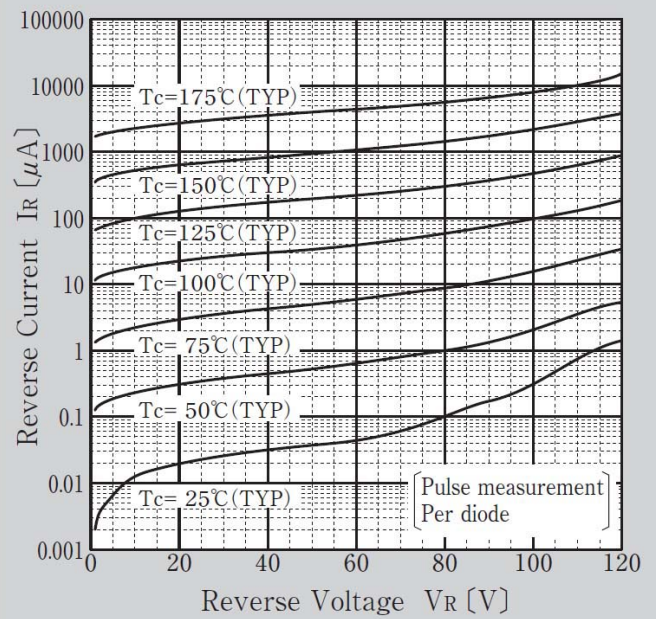
Forward Power Dissipation



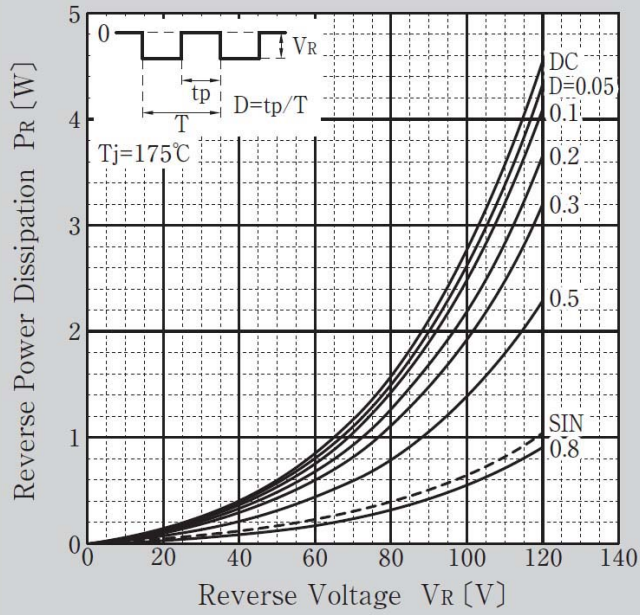
Peak Surge Forward Current Capability



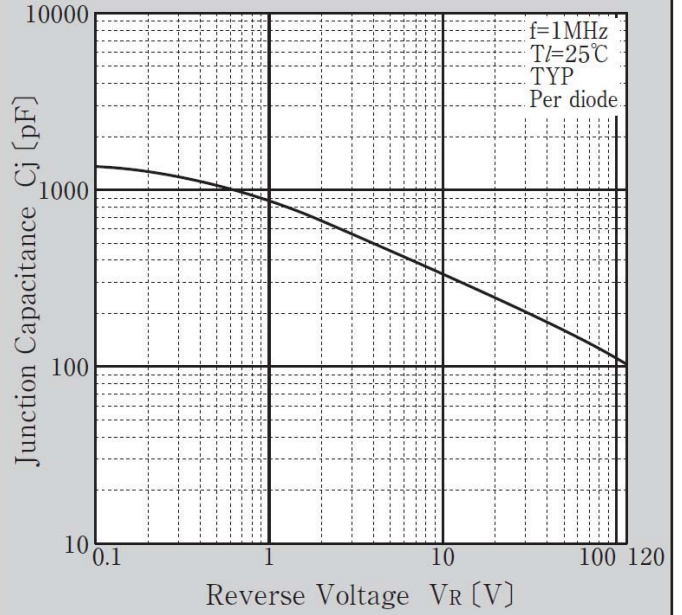
Reverse Current



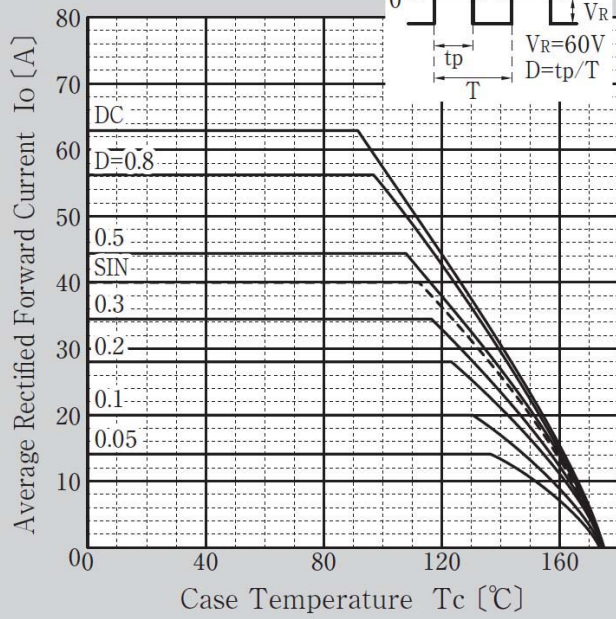
Reverse Power Dissipation



Junction Capacitance

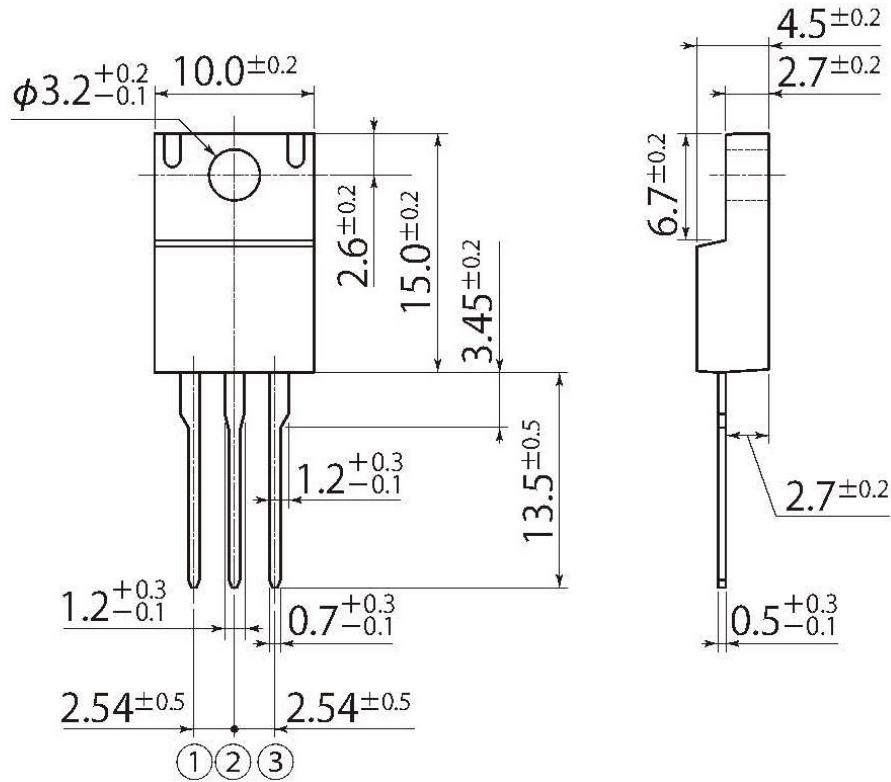


Derating Curve T_c - I_o



J9

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



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