

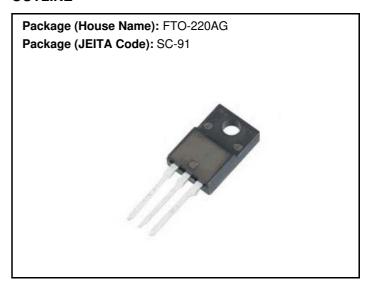
# SF20KC60M

# Fast Recovery Diodes 600V, 20A

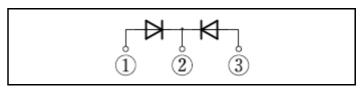
#### **Feature**

- Full Molded
- High Voltage
- · Low Noise
- · Dielectric Strength 2kV
- Pb free terminal
- RoHS:Yes

#### **OUTLINE**



## **Equivalent circuit**



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	$V_{RRM}$		600	V
Average forward current	I <sub>F</sub> (AV)	50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, With heatsink, Tc=97°C	20	А
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	180	А
Surge forward current	I <sub>FSM1</sub>	tp=1ms, Sine wave, Non-repetitive, Peak value, Per diode, Tj=25°C	569	А
Dielectric strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque : 0.3N⋅m)	0.5	N∙m

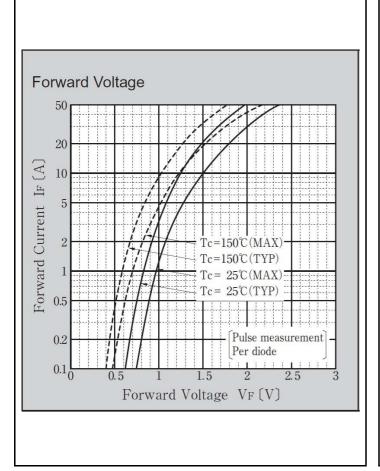
\* : See the original Specifications

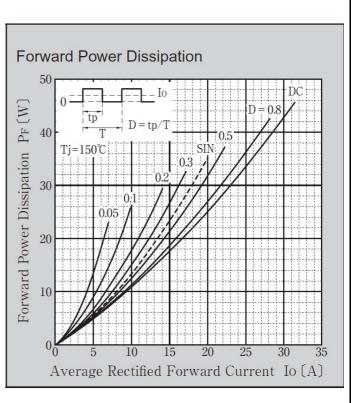
# **Electrical Characteristics** (unless otherwise specified : Tc=25°C)

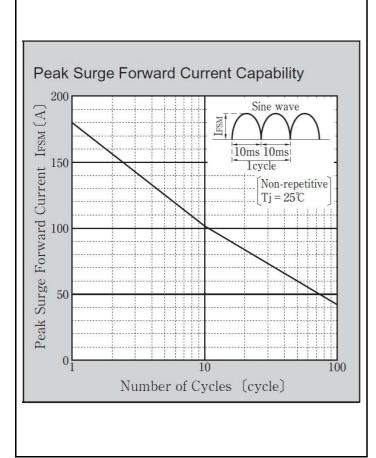
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	Oilit
Forward voltage	V <sub>F</sub>	IF=10A, Pulse measurement, Per diode		1.25	1.5	V
Forward voltage	V <sub>F</sub>	IF=1A, Pulse measurement, Per diode		0.82		V
Reverse current	I <sub>R</sub>	VR=600V, Pulse measurement, Per diode			10	μΑ
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR, Per Diode			95	ns
Reverse recovery time	trr	IF=1.0A, VR=30V, di/dt=-50A/μs, 0.25IR, Per Diode			72	ns
Reverse recovery time	trr	IF=1.0A, VR=420V, di/dt=-50A/μs, 0.25IR, Per Diode			84	ns
Total capacitance	Ct	f=1MHz, VR=10V, Per diode		53		pF
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			1.5	°C/W

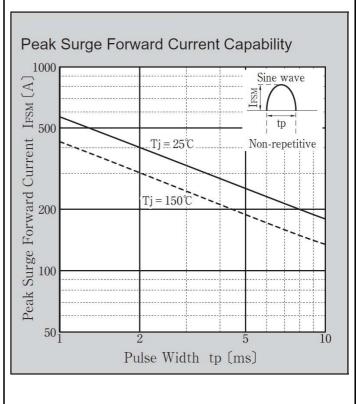
<sup>\* :</sup>See the original Specifications

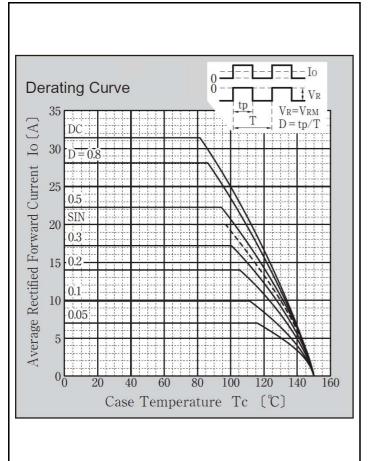
## **CHARACTERISTIC DIAGRAMS**

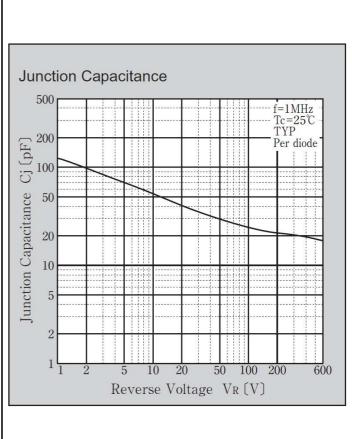






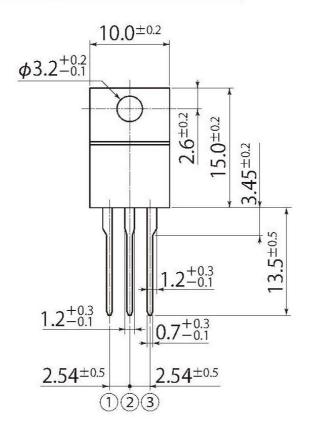


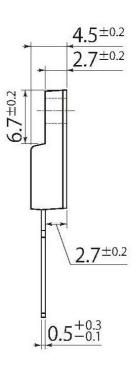




**J**8

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





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