

SF20KC60M

Fast Recovery Diodes

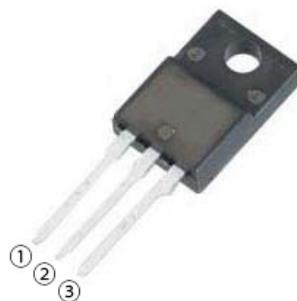
600V, 20A

Feature

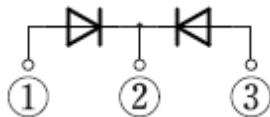
- Full Molded
- High Voltage
- Low Noise
- Dielectric Strength 2kV
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): FTO-220AG
 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 150	°C
Junction temperature	T_j		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		600	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Rating for each diode $I_F(AV)/2$, With heatsink, $T_c=97^\circ\text{C}$	20	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, $T_j=25^\circ\text{C}$	180	A
Surge forward current	I_{FSM1}	$t_p=1\text{ms}$, Sine wave, Non-repetitive, Peak value, Per diode, $T_j=25^\circ\text{C}$	569	A
Dielectric strength	V_{dis}	Terminals to case, AC 1 minute	2	kV
Mounting torque	T_{OR}	(Recommended torque : 0.3N·m)	0.5	N·m

※ :See the original Specifications

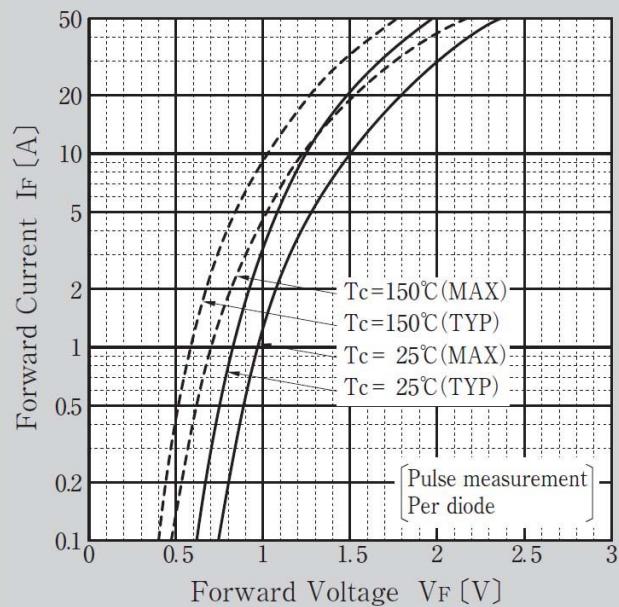
Electrical Characteristics (unless otherwise specified : $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$IF=10\text{A}$, Pulse measurement, Per diode		1.25	1.5	V
Forward voltage	V_F	$IF=1\text{A}$, Pulse measurement, Per diode		0.82		V
Reverse current	I_R	$VR=600\text{V}$, Pulse measurement, Per diode			10	μA
Reverse recovery time	trr	$IF=0.5\text{A}$, $IR=1.0\text{A}$, $0.25IR$, Per Diode			95	ns
Reverse recovery time	trr	$IF=1.0\text{A}$, $VR=30\text{V}$, $di/dt=-50\text{A}/\mu\text{s}$, $0.25IR$, Per Diode			72	ns
Reverse recovery time	trr	$IF=1.0\text{A}$, $VR=420\text{V}$, $di/dt=-50\text{A}/\mu\text{s}$, $0.25IR$, Per Diode			84	ns
Total capacitance	C_t	$f=1\text{MHz}$, $VR=10\text{V}$, Per diode		53		pF
Thermal resistance	$R_{th(j-c)}$	Junction to case, With heatsink			1.5	$^\circ\text{C}/\text{W}$

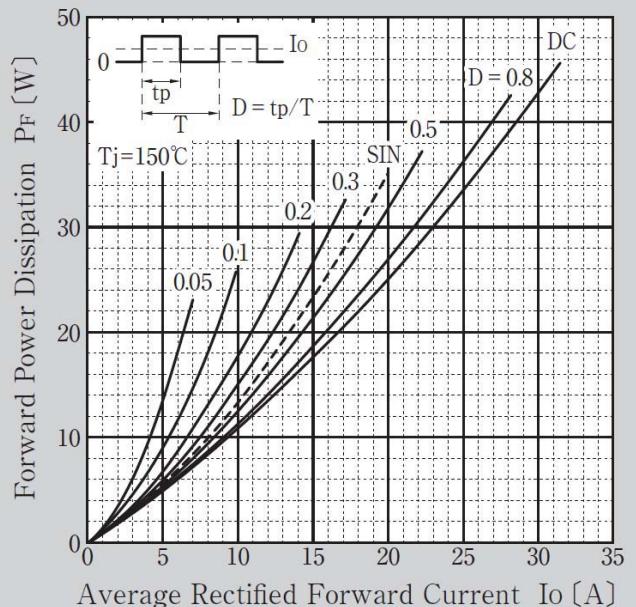
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

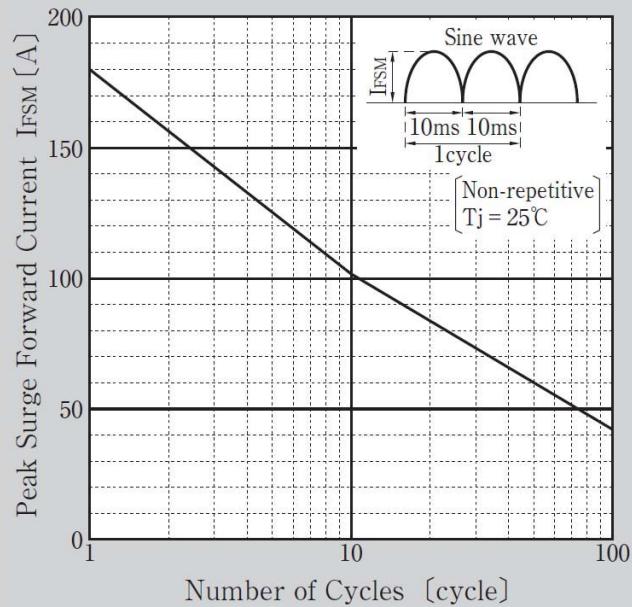
Forward Voltage



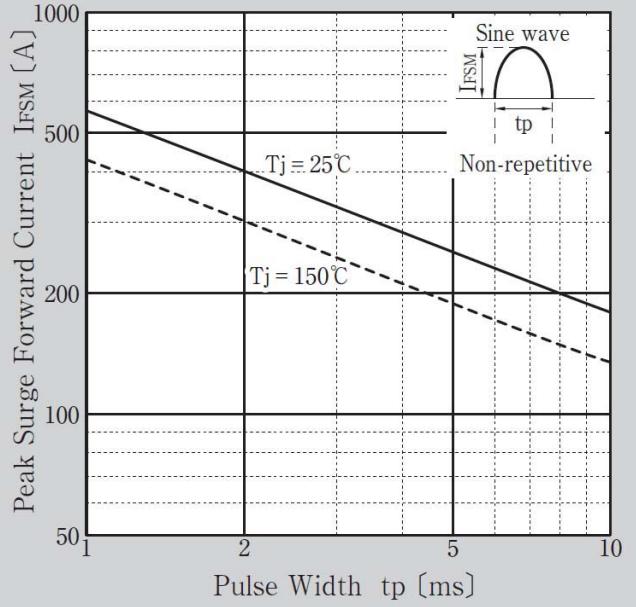
Forward Power Dissipation

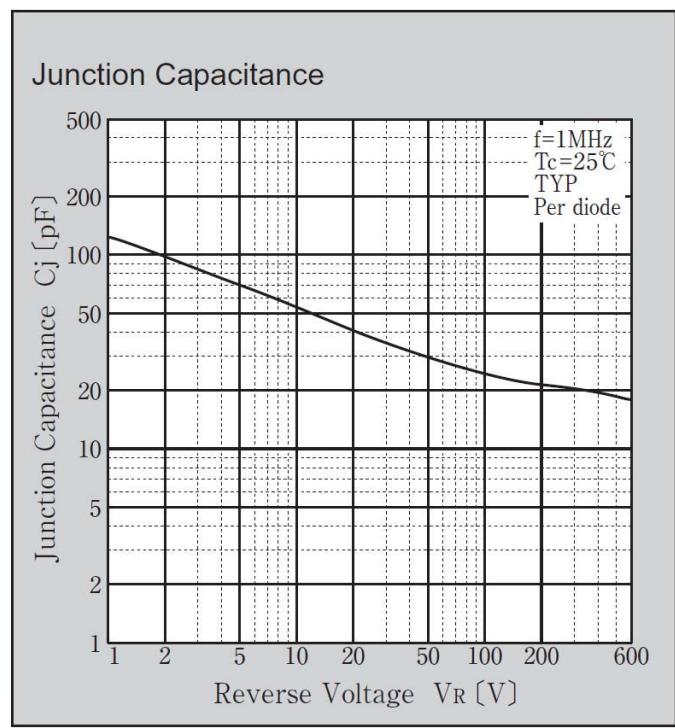
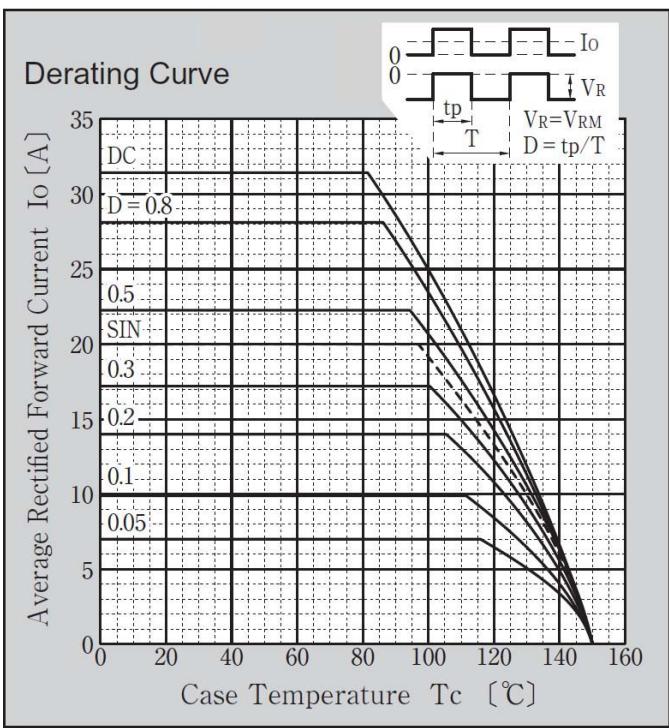


Peak Surge Forward Current Capability



Peak Surge Forward Current Capability



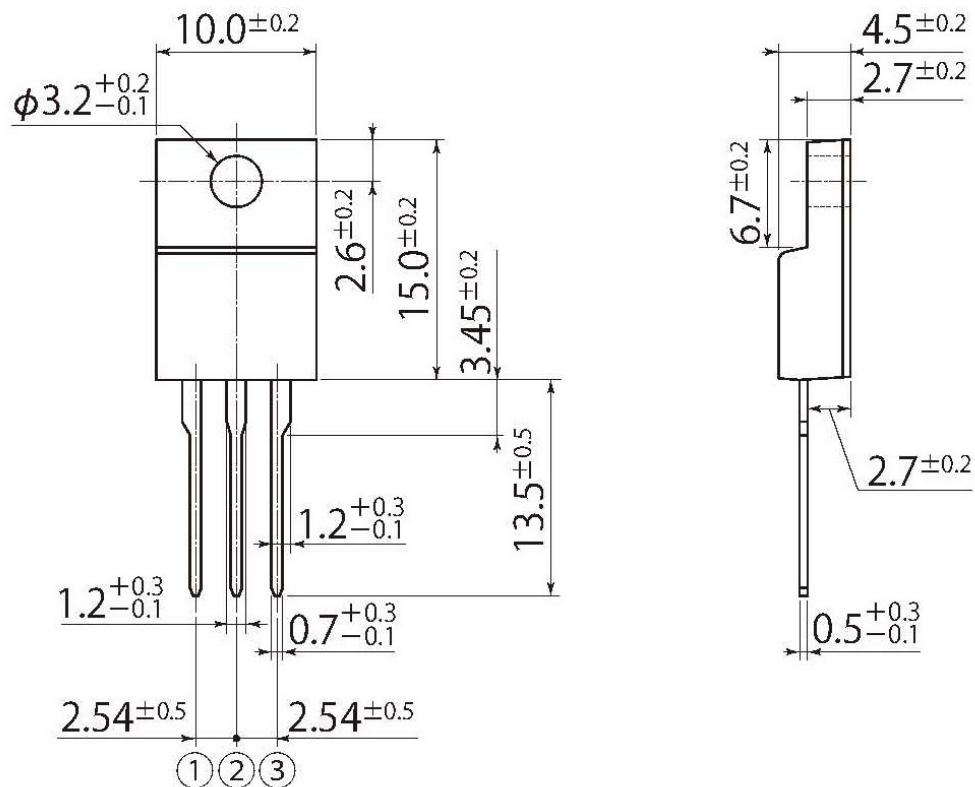


Outline Dimensions

unit:mm

J8

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



Notes

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