

# SF3K60M

## Fast Recovery Diodes

600V, 3A

### Feature

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

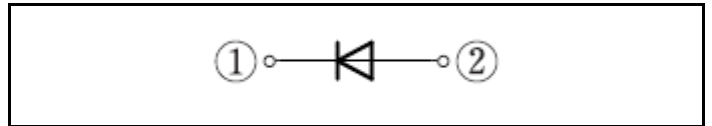
### OUTLINE

Package (House Name): FTO-220AG

Package (JEITA Code): SC-91



### Equivalent circuit



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

| Item                            | Symbol             | Conditions  | Ratings    | Unit |
|---------------------------------|--------------------|---|------------|------|
| Storage temperature             | Tstg               |   | -55 to 150 | °C   |
| Junction temperature            | Tj                 |   | 150        | °C   |
| Repetitive peak reverse voltage | V <sub>RRM</sub>   |   | 600        | V    |
| Average forward current         | I <sub>F(AV)</sub> | 50Hz sine wave, Resistance load, Tc=132°C                       | 3          | A    |
| Surge forward current           | I <sub>FSM</sub>   | 50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C     | 90         | A    |
| Surge forward current           | I <sub>FSM1</sub>  | tp=1ms, Sine wave, Non-repetitive, 1 cycle, Peak value, Tj=25°C | 210        | A    |
| 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

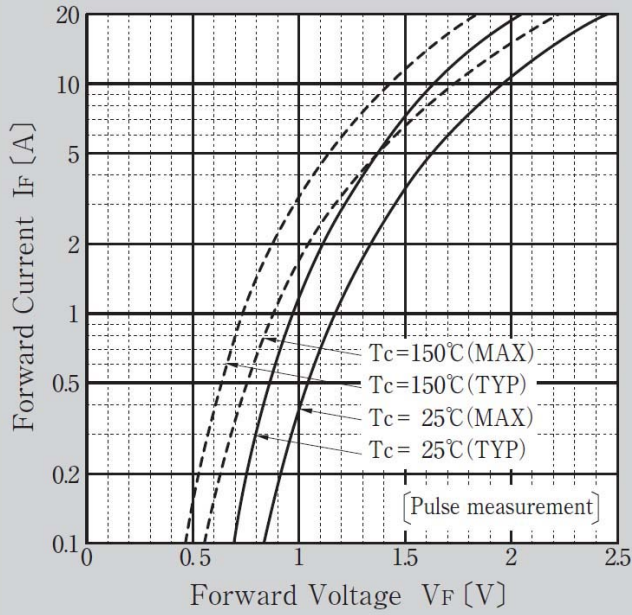
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

| Item                  | Symbol         | Conditions                              | Ratings |      |      | Unit |
|-----------------------|----------------|---|---------|------|------|------|
|                       |                |   | MIN     | TYP  | MAX  |      |
| Forward voltage       | V <sub>F</sub> | IF=3.0A, Pulse measurement              |         | 1.21 | 1.45 | V    |
| Forward voltage       | V <sub>F</sub> | IF=0.3A, Pulse measurement              |         | 0.81 |      | V    |
| Reverse current       | I <sub>R</sub> | VR=600V, Pulse measurement              |         |      | 10   | μA   |
| Reverse recovery time | trr            | IF=0.5A, IR=1.0A, 0.25IR                |         |      | 80   | ns   |
| Reverse recovery time | trr            | IF=1.0A, VR=30V, di/dt=-50A/μs, 0.25IR  |         |      | 64   | ns   |
| Reverse recovery time | trr            | IF=1.0A, VR=420V, di/dt=-50A/μs, 0.25IR |         |      | 76   | ns   |
| Total capacitance     | Ct             | f=1MHz, VR=10V                          |         | 18   |      | pF   |
| Thermal resistance    | Rth(j-c)       | Junction to case                        |         |      | 3.5  | °C/W |

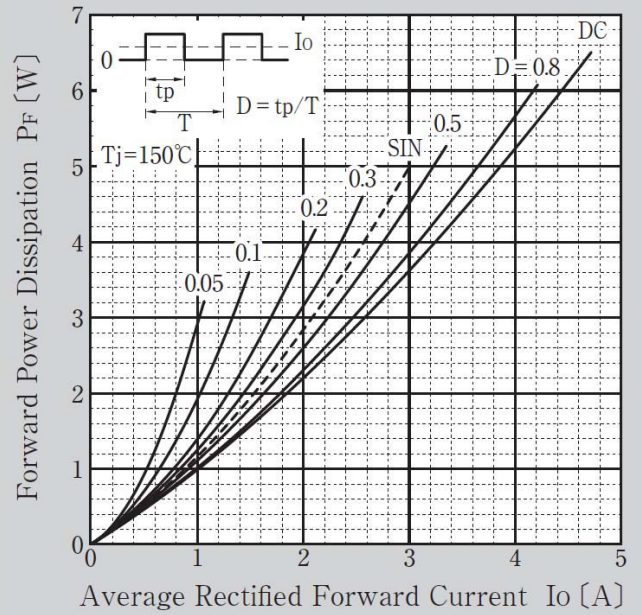
\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

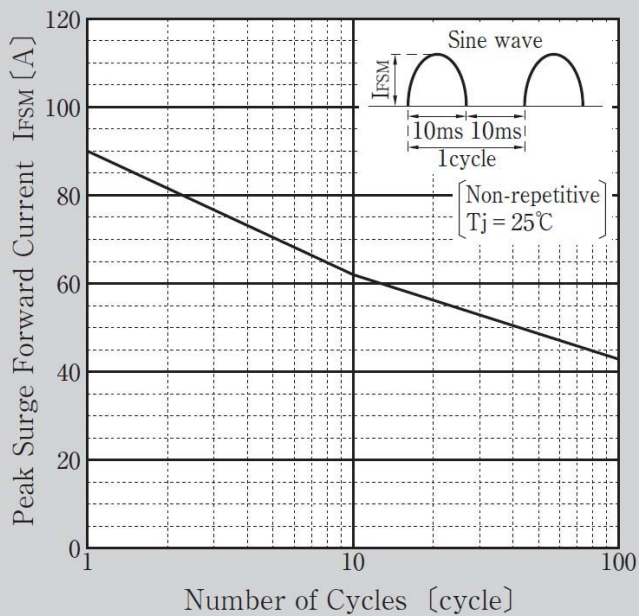
### Forward Voltage



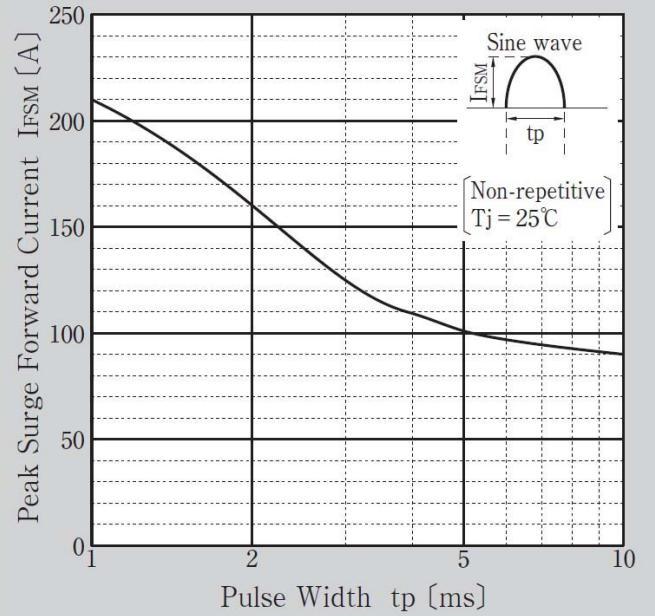
### Forward Power Dissipation

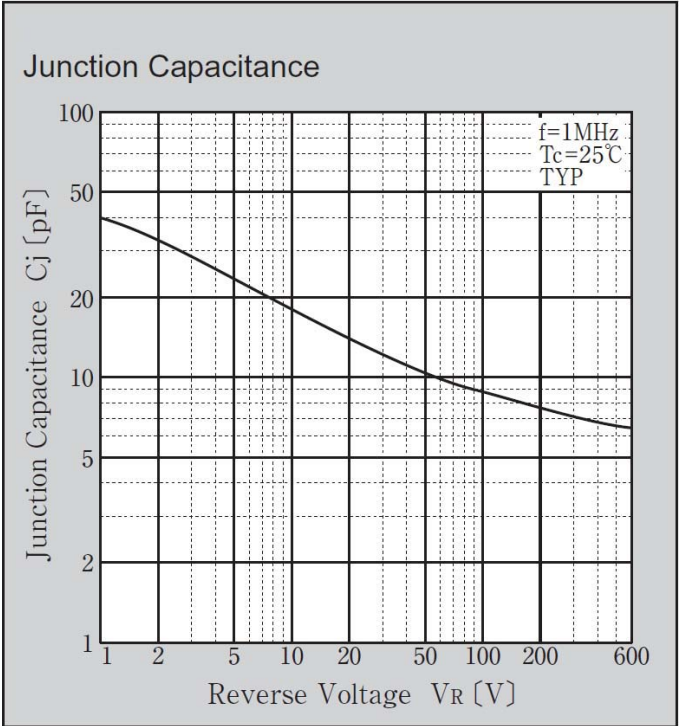
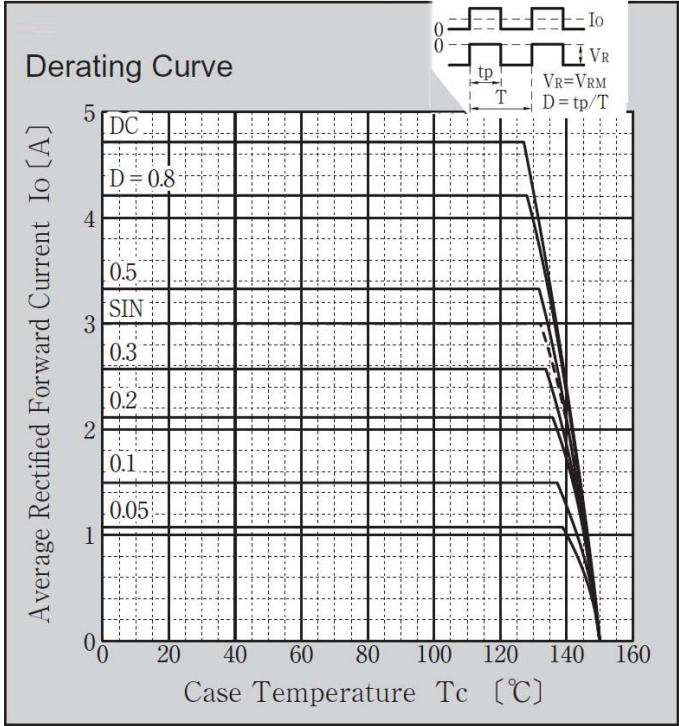


### Peak Surge Forward Current Capability



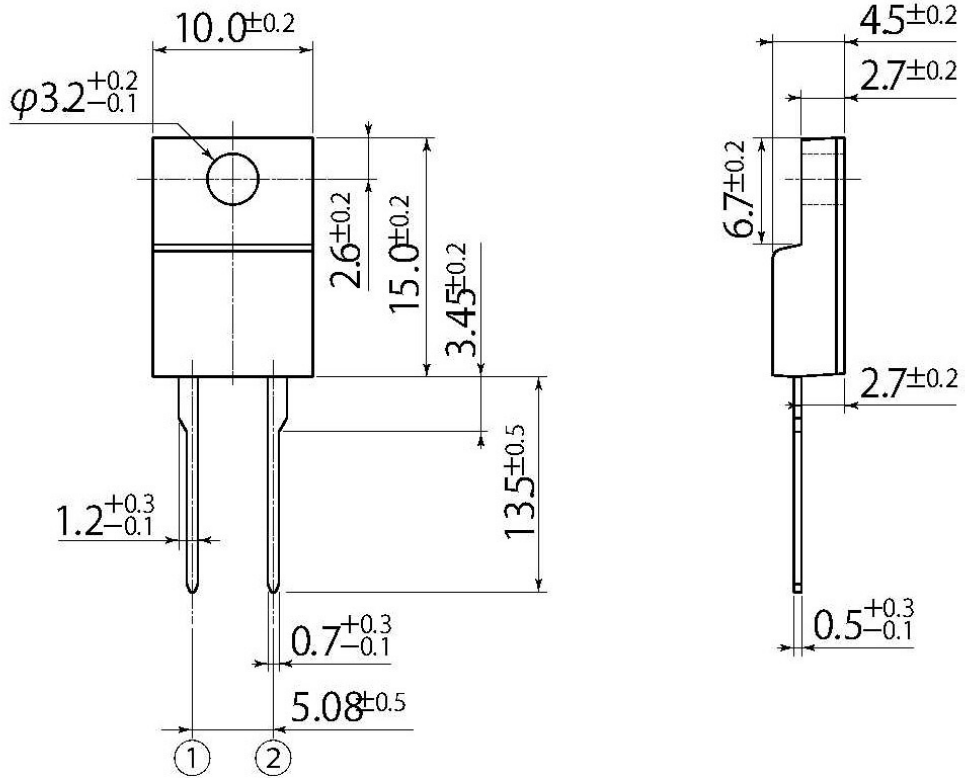
### Peak Surge Forward Current Capability





J3

|            |                 |
|------------|-----------------|
| JEDEC Code | —               |
| JEITA Code | SC-91           |
| House Name | FTO-220AG(2pin) |



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