

SF10KC60M

Fast Recovery Diodes  
600V, 10A

Feature

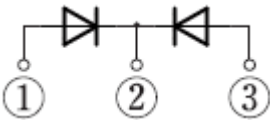
- Full Molded
- High Voltage
- Low Noise
- Dielectric Strength 2kV
- Pb free terminal
- RoHS:Yes

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 temperrature            | Tstg   |  | -55 to 150 | °C   |
| Junction temperature            | Tj     |  | -55 to 150 | °C   |
| Repetitive peak reverse voltage | VRRM   |  | 600        | V    |
| Average forward current         | IF(AV) | 50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, With heatsink, Tc=109°C | 10         | A    |
| Surge forward current           | IFSM   | 50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C                              | 120        | A    |
| Surge forward current           | IFSM1  | tp=1ms, Sine wave, Non-repetitive, Peak value, Per diode, Tj=25°C                        | 379        | A    |
| Dielectric strength             | Vdis   | Terminals to case, AC 1 minute   | 2          | kV   |
| Mounting torque                 | TOR    | (Recommended torque : 0.3N・m)  | 0.5        | N・m  |

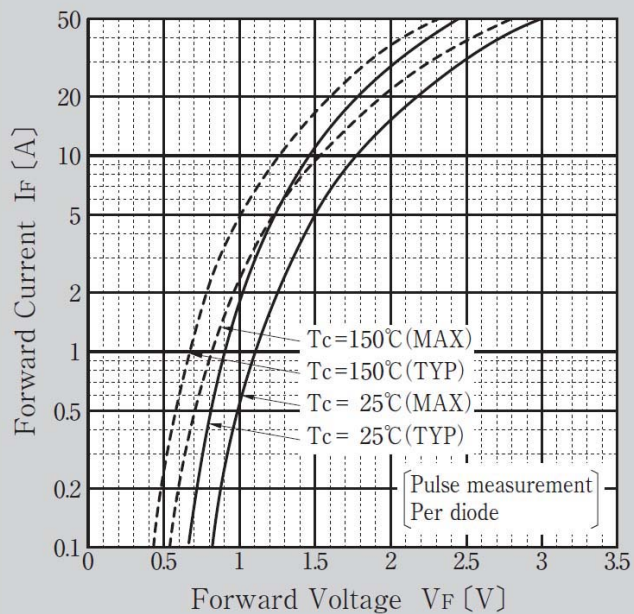
※ :See the original Specifications

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

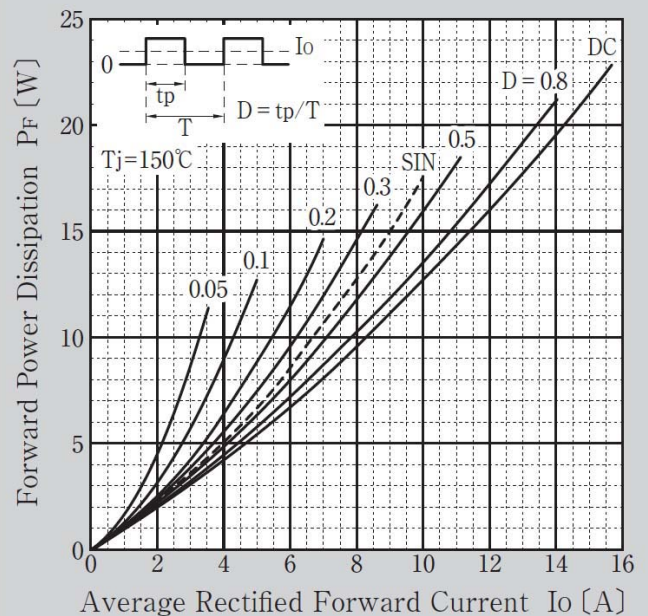
| Item                  | Symbol   | Conditions   | Ratings |      |     | Unit |
|-----------------------|----------|--|---------|------|-----|------|
|                       |          |  | MIN     | TYP  | MAX |      |
| Forward voltage       | $V_F$    | IF=5A, Pulse measurement, Per diode                |         | 1.23 | 1.5 | V    |
| Forward voltage       | $V_F$    | IF=0.5A, Pulse measurement, Per diode              |         | 0.81 |     | V    |
| Reverse current       | $I_R$    | VR=600V, Pulse measurement, Per diode              |         |      | 10  | μA   |
| Reverse recovery time | trr      | IF=0.5A, IR=1.0A, 0.25IR, Per Diode                |         |      | 85  | ns   |
| Reverse recovery time | trr      | IF=1.0A, VR=30V, di/dt=-50A/μs, 0.25IR, Per Diode  |         |      | 68  | ns   |
| Reverse recovery time | trr      | IF=1.0A, VR=420V, di/dt=-50A/μs, 0.25IR, Per Diode |         |      | 78  | ns   |
| Total capacitance     | Ct       | f=1MHz, VR=10V, Per diode                          |         | 28   |     | pF   |
| Thermal resistance    | Rth(j-c) | Junction to case                                   |         |      | 2.3 | °C/W |

※ :See the original Specifications

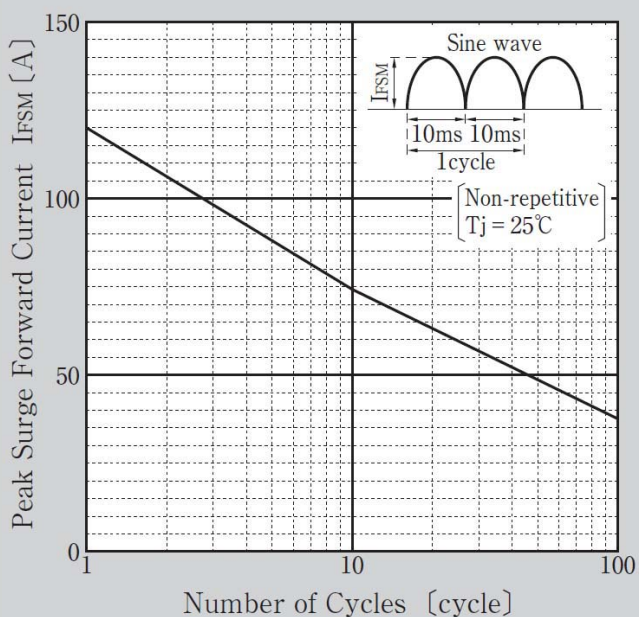
## Forward Voltage



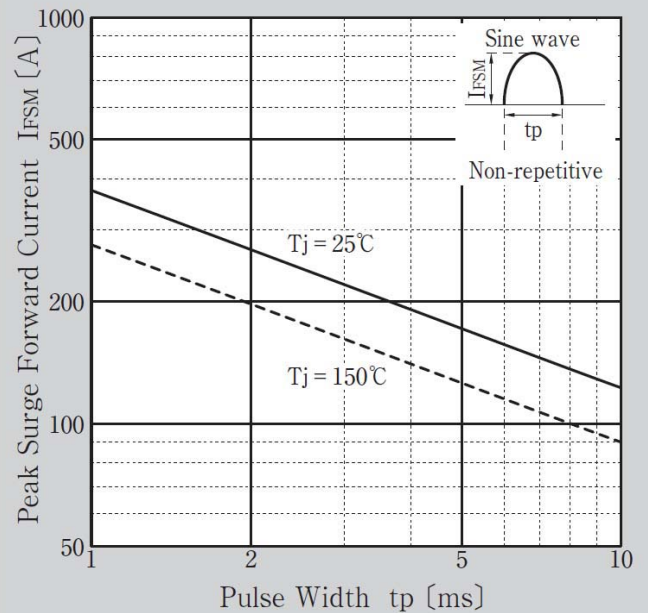
## Forward Power Dissipation



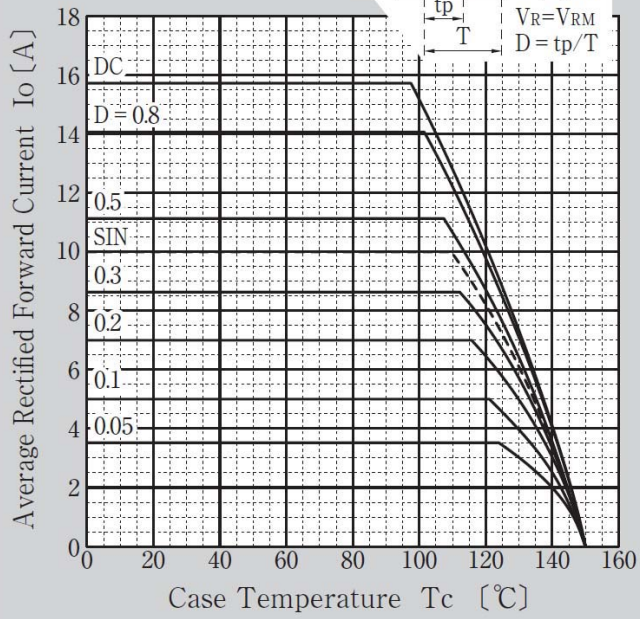
## Peak Surge Forward Current Capability



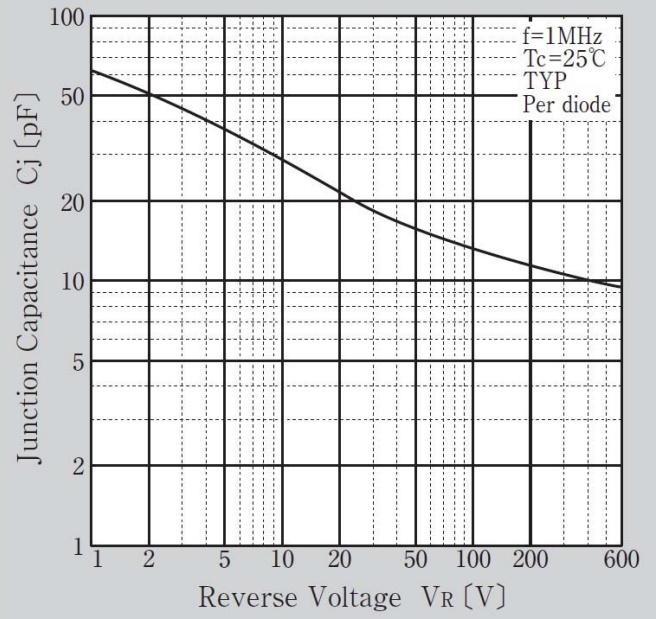
## Peak Surge Forward Current Capability



Derating Curve



Junction Capacitance

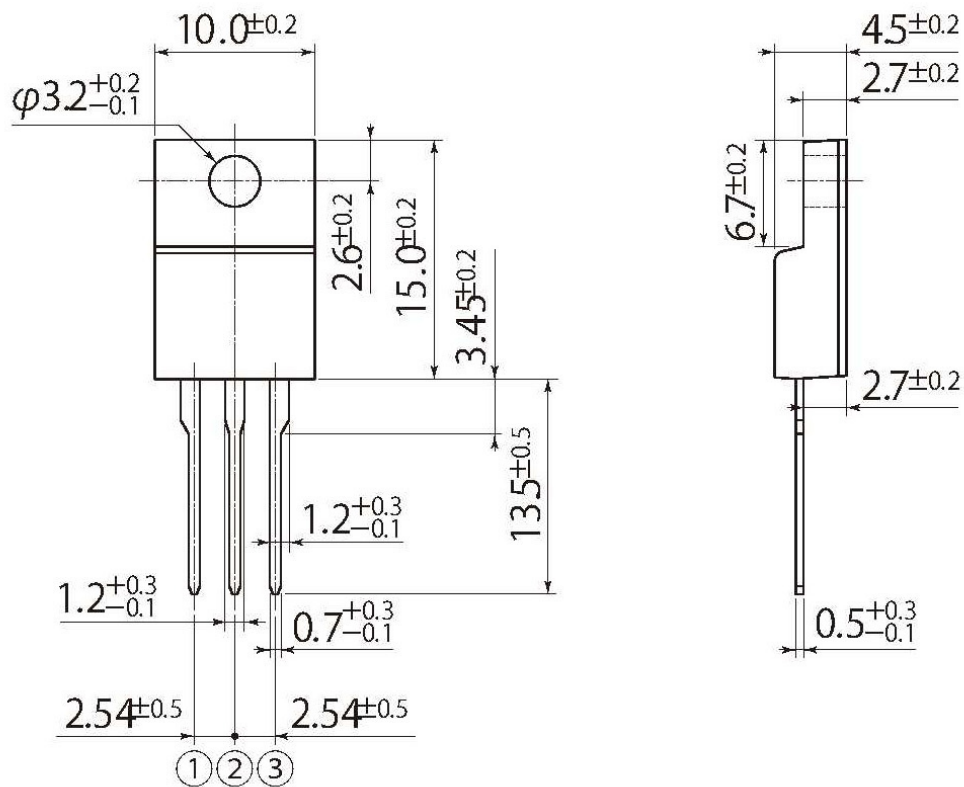


unit:mm

scale: 2/1

J8

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



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