

SF20LC30M

Fast Recovery Diodes

300V, 20A

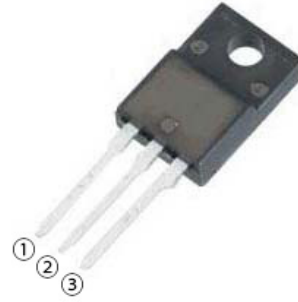
Feature

- Full Molded
- High Recovery Speed
- Dielectric Strength 2kV
- Pb free terminal
- RoHS:Yes

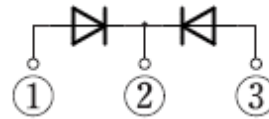
OUTLINE

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 | | -55 to 150 | °C |
| Repetitive peak reverse voltage | V _{RRM} | | 300 | V |
| Average forward current | I _{F(AV)} | 50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, With heatsink, Tc=107°C | 20 | A |
| Surge forward current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C | 250 | A |
| Surge forward current | I _{FSM1} | tp=1ms, Sine wave, Non-repetitive, Peak value, Per diode, Tj=25°C | 630 | 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

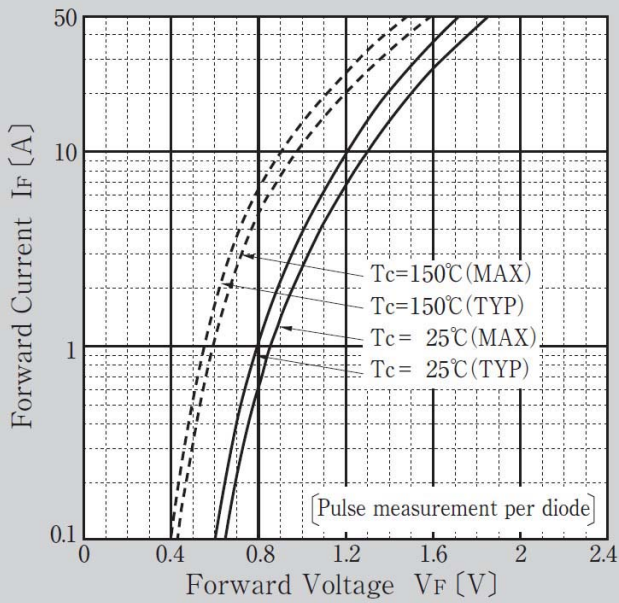
Electrical Characteristics (unless otherwise specified : Tc=25°C)

| Item | Symbol | Conditions | Ratings | | | Unit |
|-----------------------|----------------|---------------------------------------|---------|------|-----|------|
| | | | MIN | TYP | MAX | |
| Forward voltage | V _F | IF=10A, Pulse measurement, Per diode | | 1.21 | 1.3 | V |
| Reverse current | I _R | VR=300V, Pulse measurement, Per diode | | | 25 | μA |
| Reverse recovery time | trr | IF=0.5A, IR=1.0A, 0.25IR, Per Diode | | | 30 | ns |
| Total capacitance | Ct | f=1MHz, VR=10V, Per diode | | 90 | | pF |
| Thermal resistance | Rth(j-c) | Junction to case | | | 1.7 | °C/W |

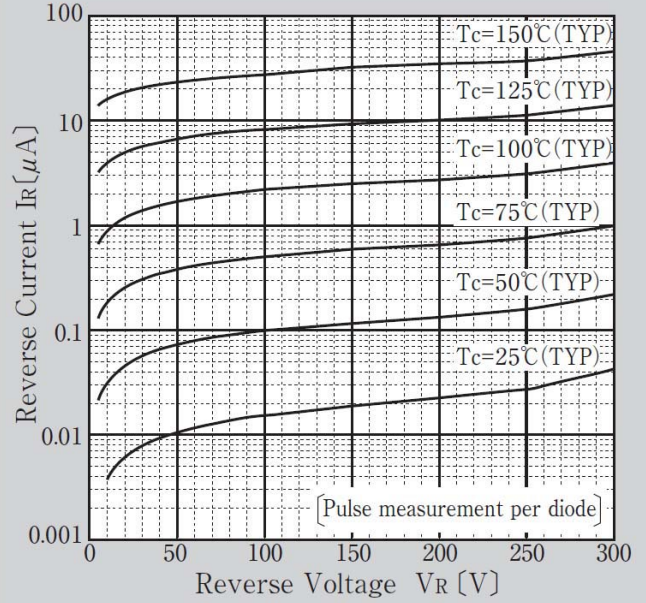
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

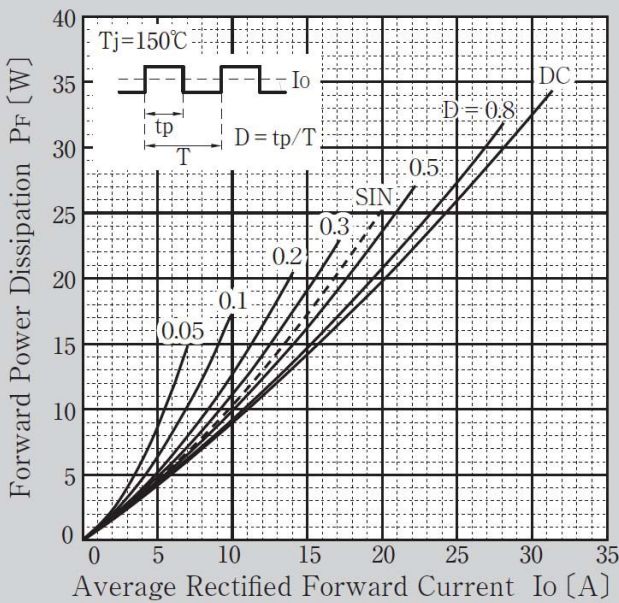
Forward Voltage



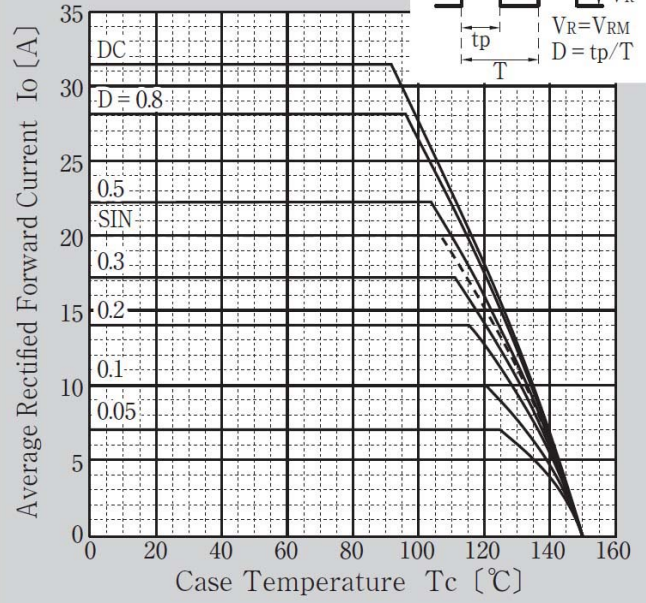
Reverse Current



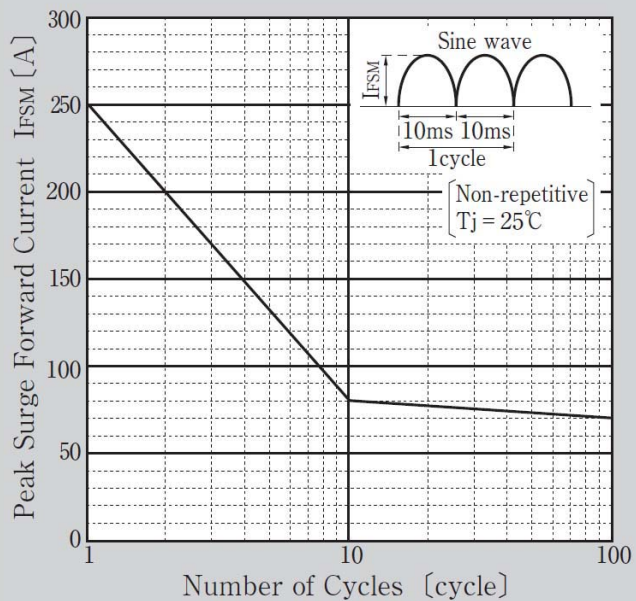
Forward Power Dissipation



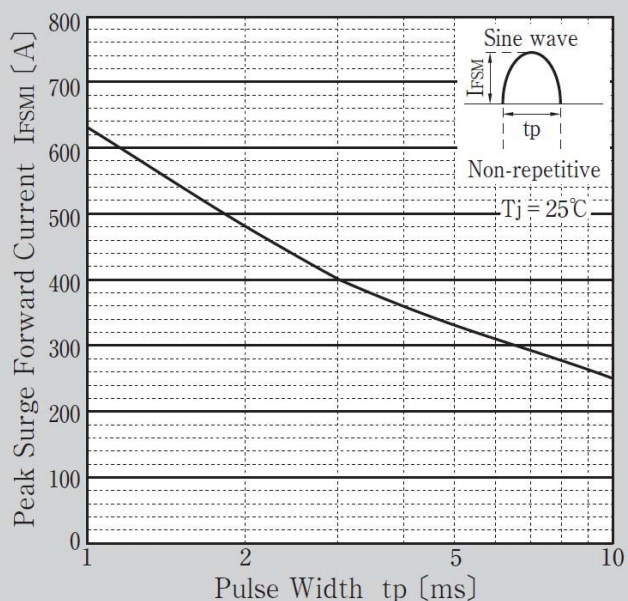
Derating Curve



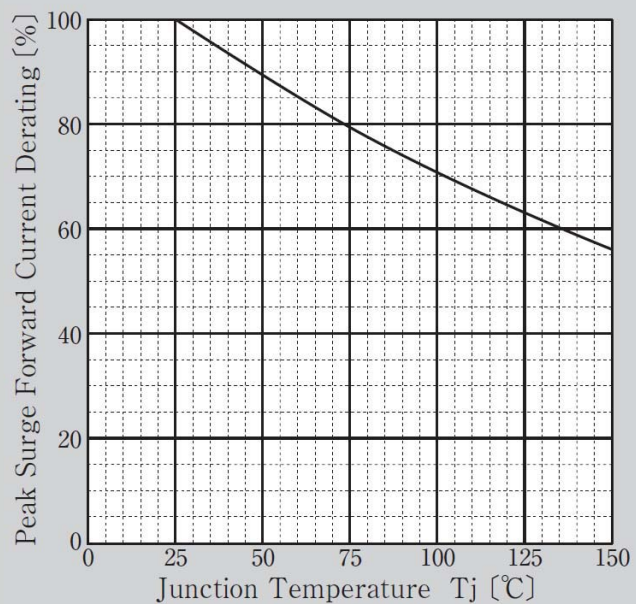
Peak Surge Forward Current Capability



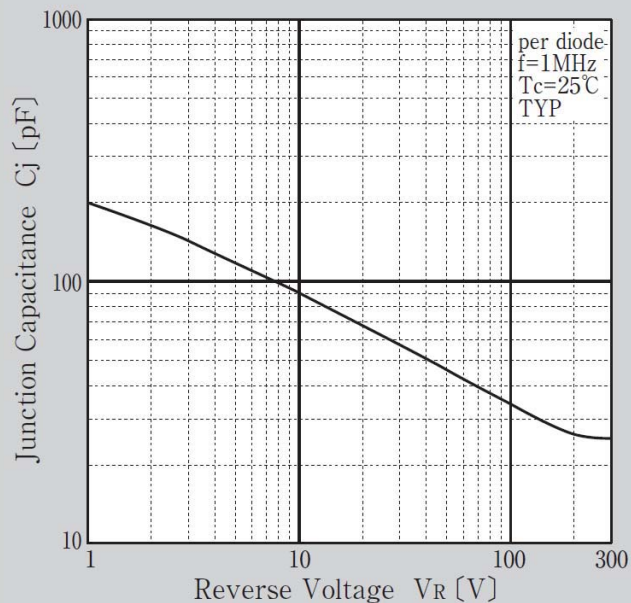
Peak Surge Forward Current Capability



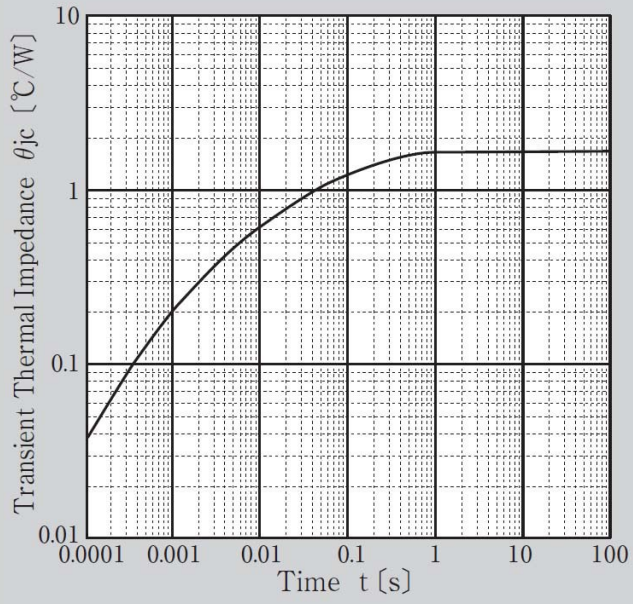
Peak Surge Forward Current Derating vs Junction Temperature



Junction Capacitance

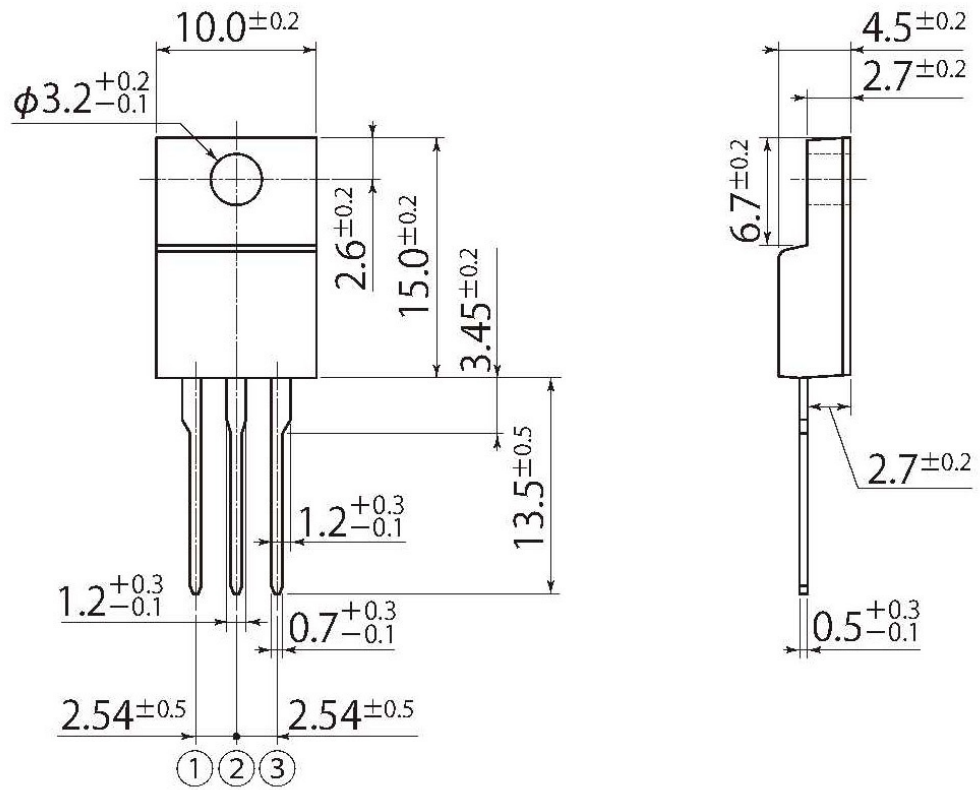


Transient Thermal Impedance



J8

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



Notes

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