

# Fast recovery diodes

## RF2001T3D

●Applications

General rectification

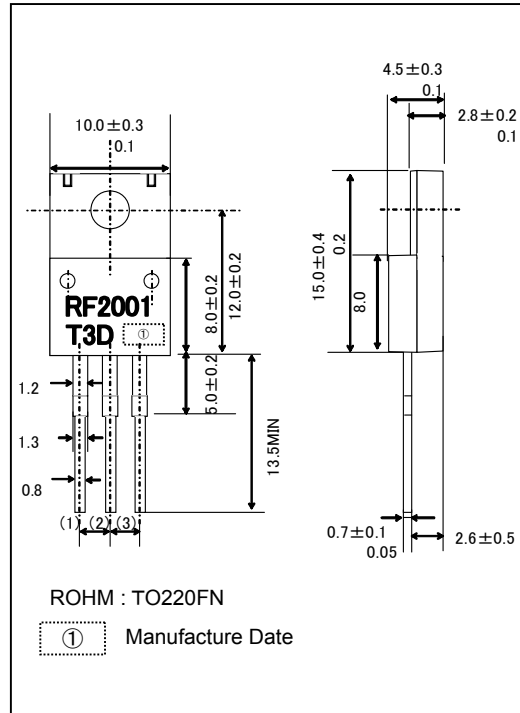
●Features

- 1) Cathode common type. (TO-220)
- 2) Ultra Low  $V_F$
- 3) Very fast recovery
- 4) Low switching loss

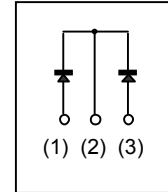
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure



●Absoslute maximum ratings (Ta=25°C)

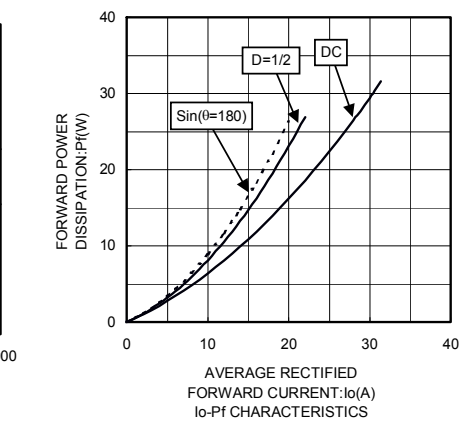
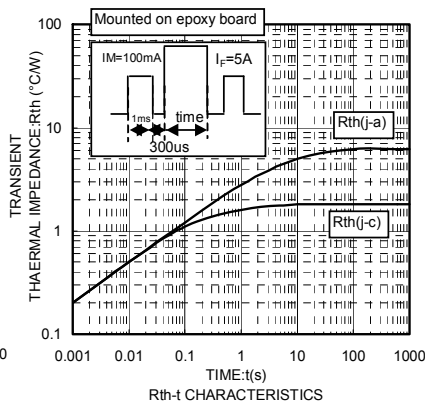
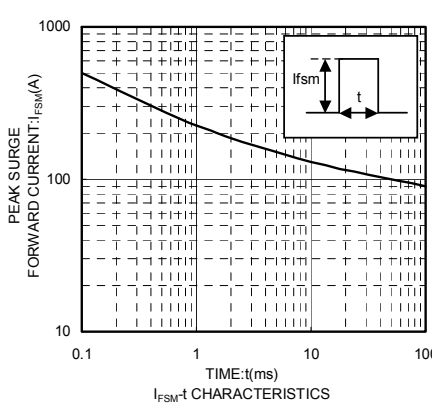
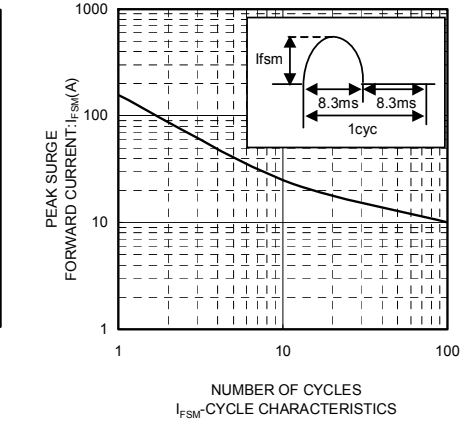
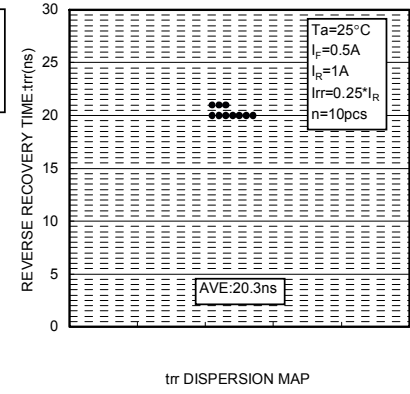
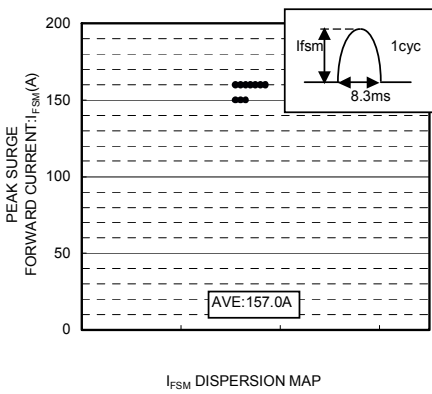
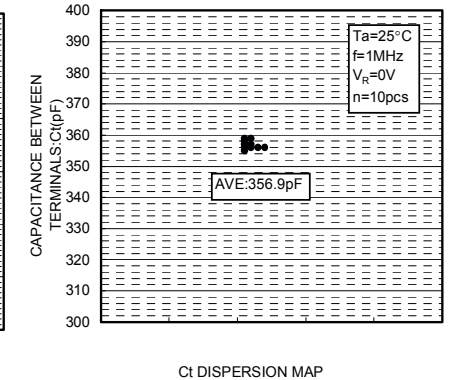
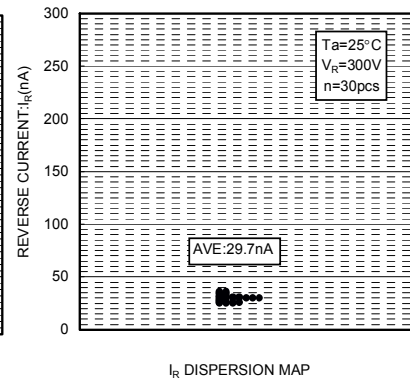
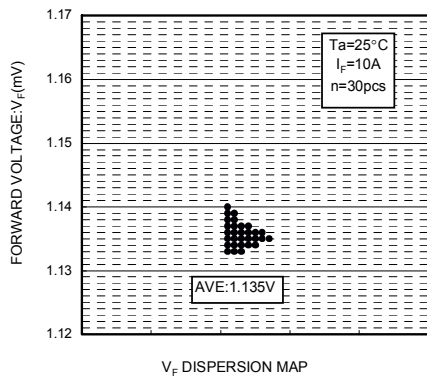
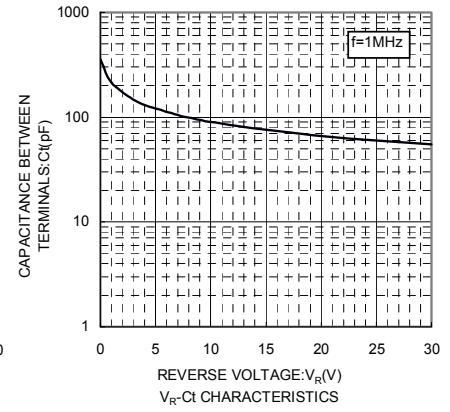
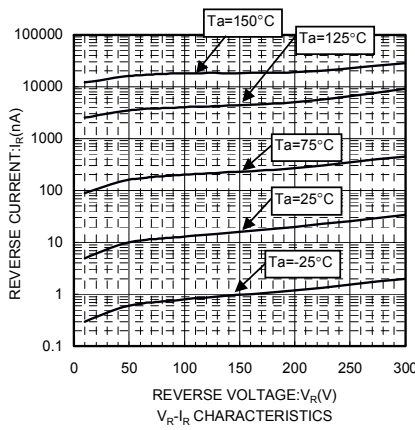
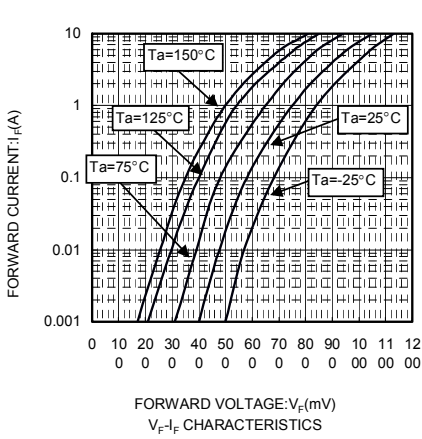
| Parameter                              | Symbol    | Limits      | Unit |
|--|-----------|-------------|------|
| Reverse voltage (repetitive peak)      | $V_{RM}$  | 300         | V    |
| Reverse voltage (DC)                   | $V_R$     | 300         | V    |
| Average rectified forward current (*1) | $I_o$     | 20          | A    |
| Forward current surge peak (60Hz/1cyc) | $I_{FSM}$ | 100         | A    |
| Junction temperature                   | $T_j$     | 150         | °C   |
| Storage temoerature                    | $T_{stg}$ | -55 to +150 | °C   |

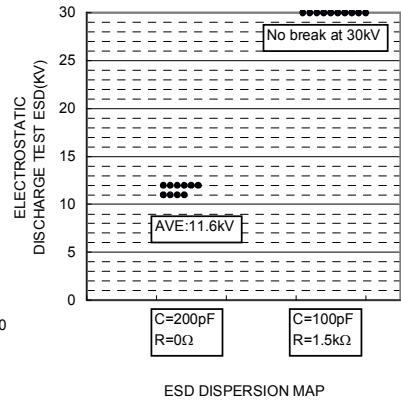
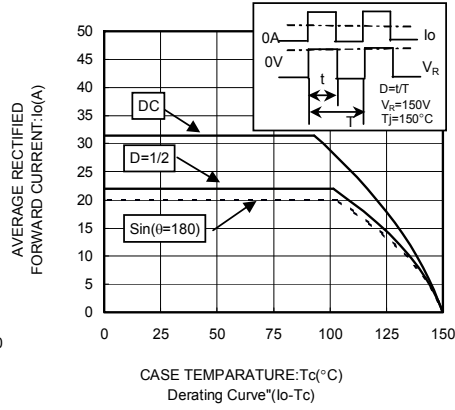
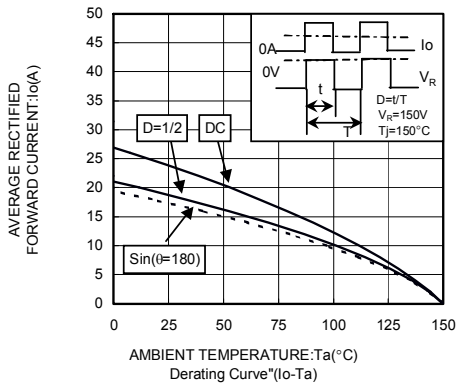
(\*1)Business frequency, Rating of R-load,  $T_c=113^\circ\text{C}$  1/2  $I_o$  per diode

●Electrical characteristic (Ta=25°C)

| Parameter             | Symbol   | Min. | Typ. | Max. | Unit          | Conditions  |
|-----------------------|----------|------|------|------|---------------|---|
| Forward voltage       | $V_F$    | -    | -    | 1.3  | V             | $I_F=10\text{A}$                                  |
| Reverse current       | $I_R$    | -    | -    | 10   | $\mu\text{A}$ | $V_R=300\text{V}$                                 |
| Reverse recovery time | $t_{rr}$ | -    | -    | 25   | ns            | $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25*I_R$ |

●Electrical characteristics curves





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