

Fast recovery diodes

RF1001T2D

●Applications

General rectification

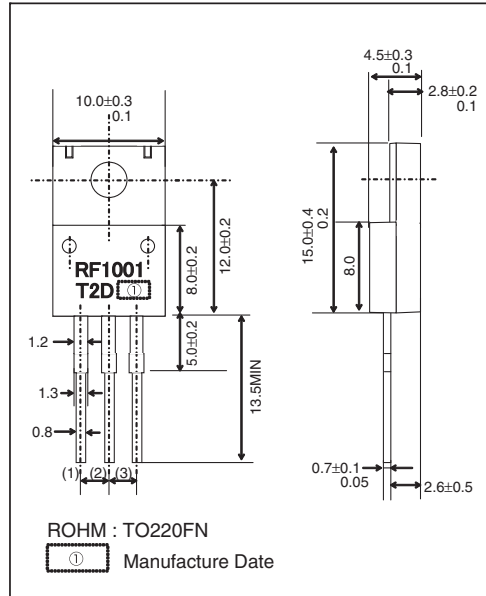
●Features

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

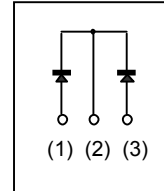
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (Ta=25°C)

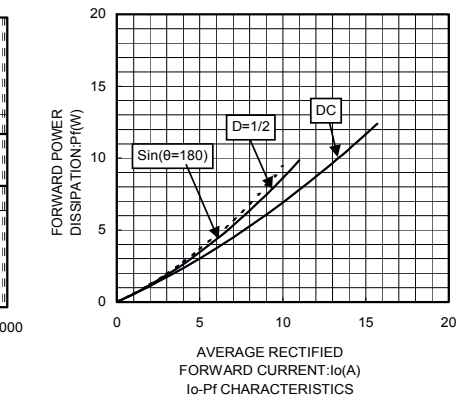
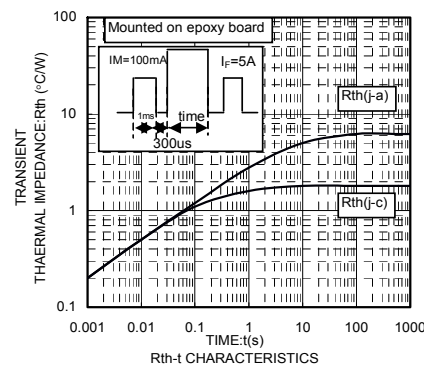
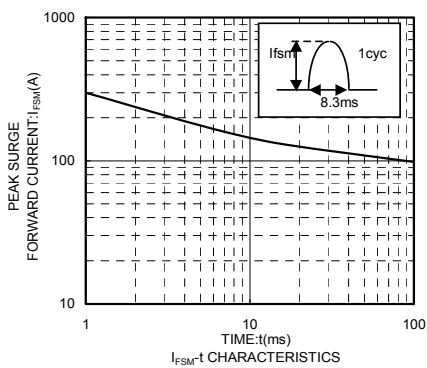
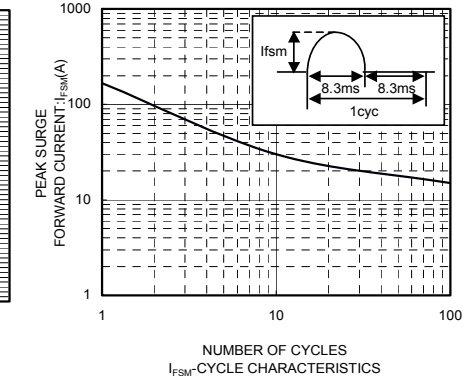
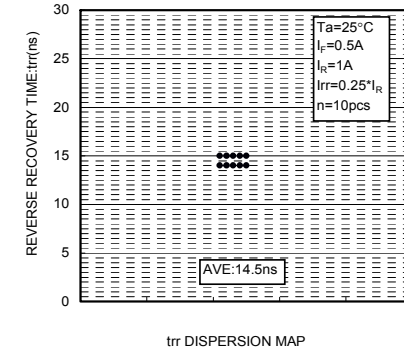
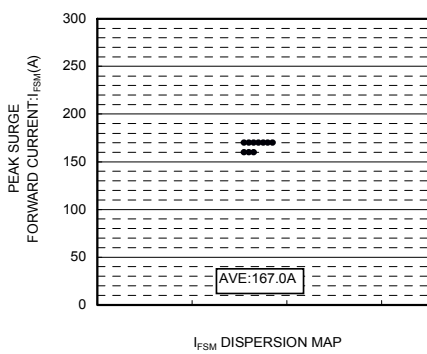
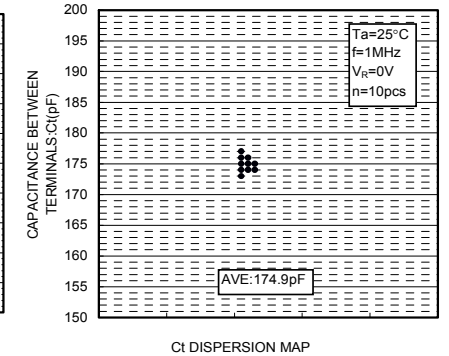
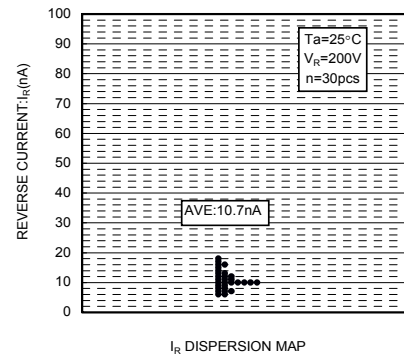
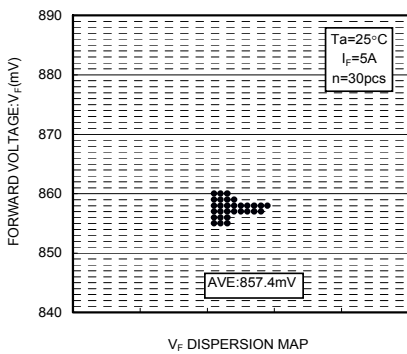
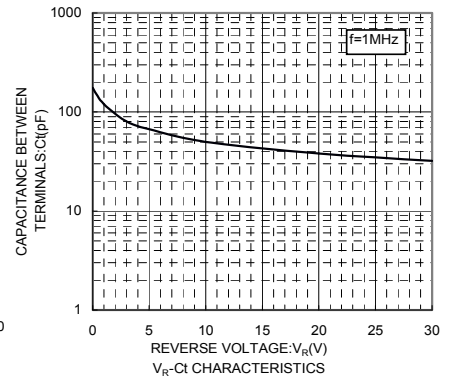
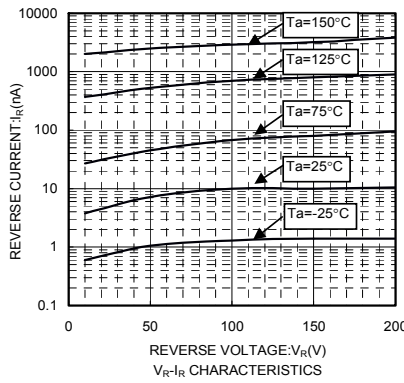
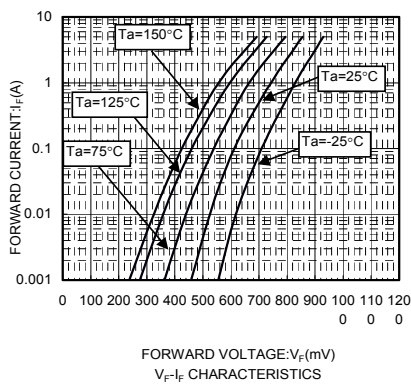
| Parameter | Symbol | Limits | Unit |
|--|-----------|-------------|------|
| Reverse voltage (repetitive peak) | V_{RM} | 200 | V |
| Reverse voltage (DC) | V_R | 200 | V |
| Average rectified forward current (*1) | I_o | 10 | A |
| Forward current surge peak (60Hz/1cyc) | I_{FSM} | 80 | A |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

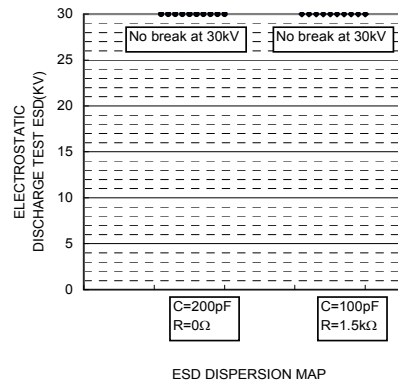
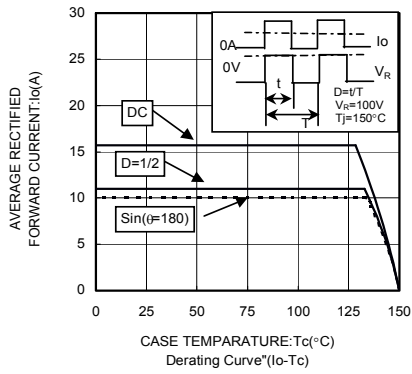
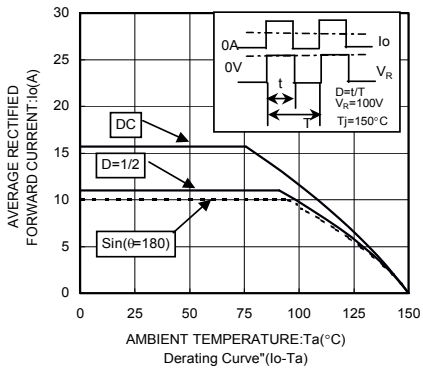
(*1)Business frequencies, Rating of R-load, $T_c=126$ °C. 1/2 I_o per diode

●Electrical characteristic (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------------|----------------|------|------|------|------|-------------------------------------|
| Forward voltage | V_F | - | 0.87 | 0.93 | V | $I_F=5A$ |
| Reverse current | I_R | - | 0.01 | 10 | μA | $V_R=200V$ |
| Reverse recovery time | t_{rr} | - | 15 | 30 | ns | $I_F=0.5A, I_R=1A, I_{rr}=0.25*I_R$ |
| Thermal impedance | θ_{j-c} | - | - | 2.5 | °C/W | JUNCTION TO CASE |

●Electrical characteristics curves





Notes

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