

# Fast recovery diodes

## RF601B2D

● **Applications**

General rectification

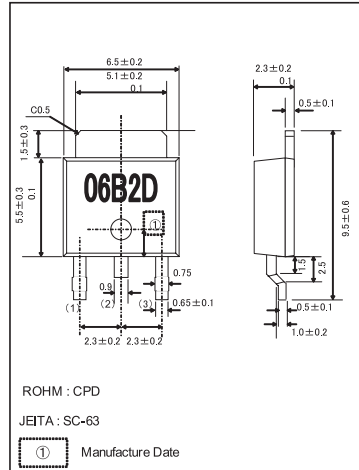
● **Features**

- 1) Power mold type.(CPD)
- 2) Ultra Low  $V_F$
- 3) Very fast recovery
- 4) Low switching loss

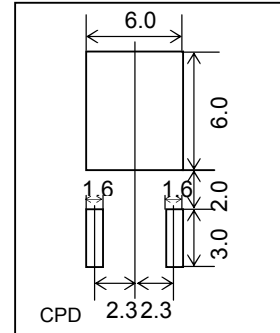
● **Construction**

Silicon epitaxial planer

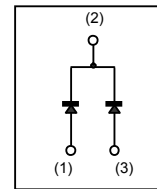
● **Dimensions (Unit : mm)**



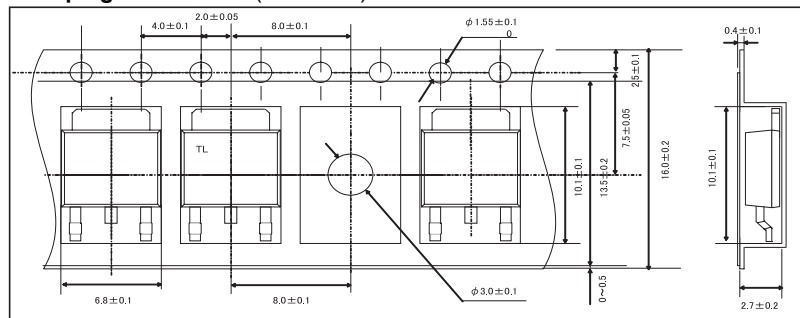
● **Land size figure (Unit : mm)**



● **Structure**



● **Taping dimensions (Unit : mm)**



● **Absolute maximum ratings (Ta=25°C)**

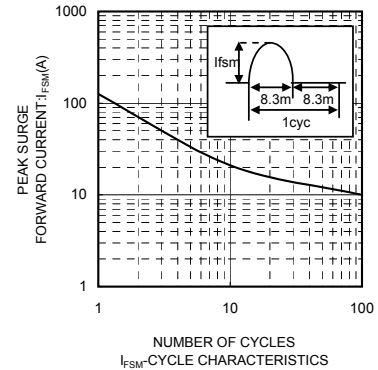
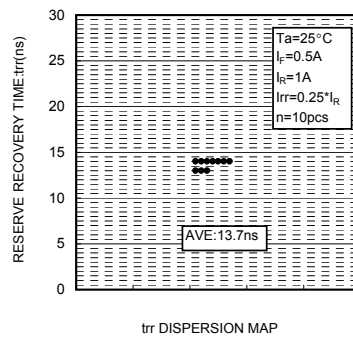
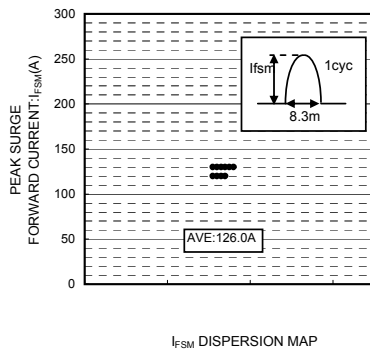
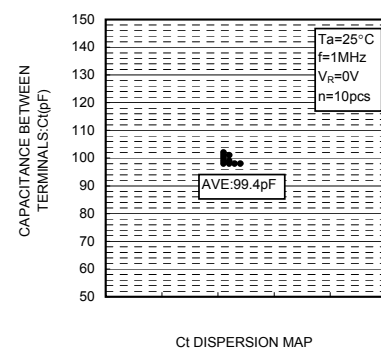
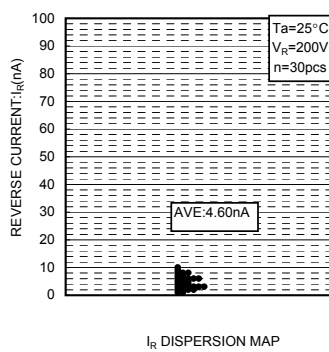
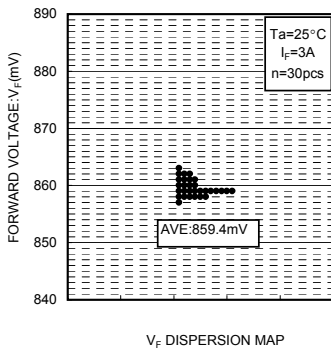
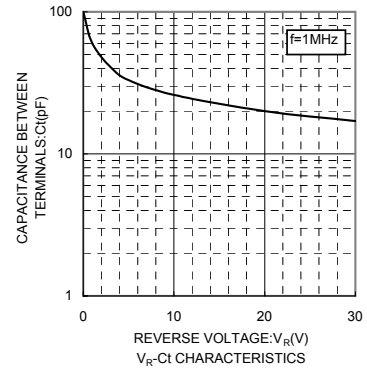
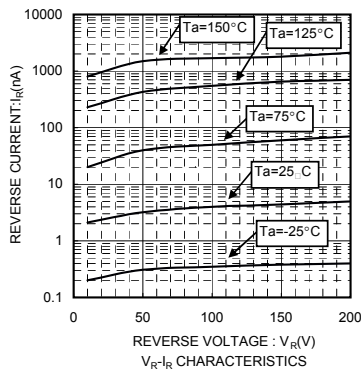
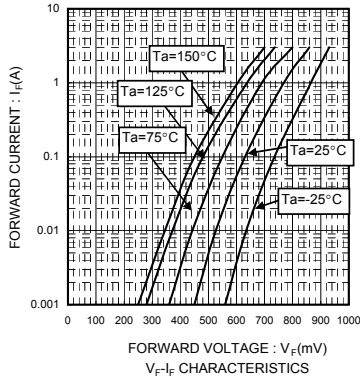
| Parameter                              | Symbol    | Limits      | Unit |
|--|-----------|-------------|------|
| Reverse voltage (repetitive peak)      | $V_{RM}$  | 200         | V    |
| Reverse voltage (DC)                   | $V_R$     | 200         | V    |
| Average rectified forward current (*1) | $I_O$     | 6           | A    |
| Forward current surge peak (60Hz/1cyc) | $I_{FSM}$ | 40          | A    |
| Junction temperature                   | $T_j$     | 150         | °C   |
| Storage temperature                    | $T_{stg}$ | -55 to +150 | °C   |

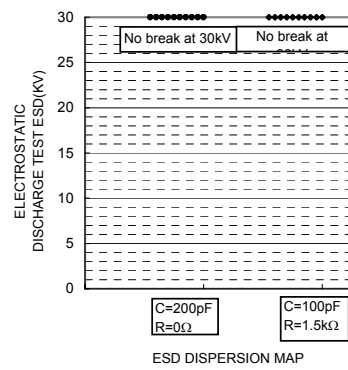
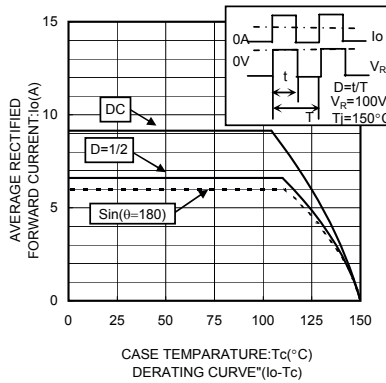
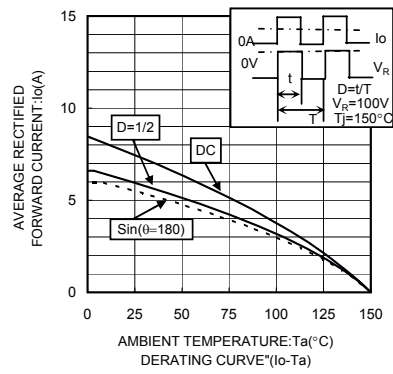
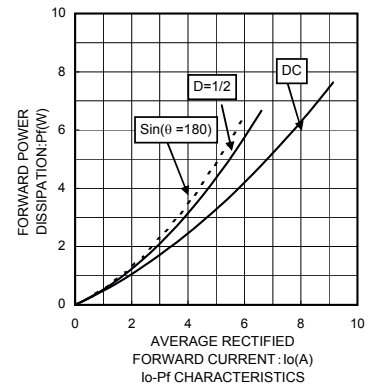
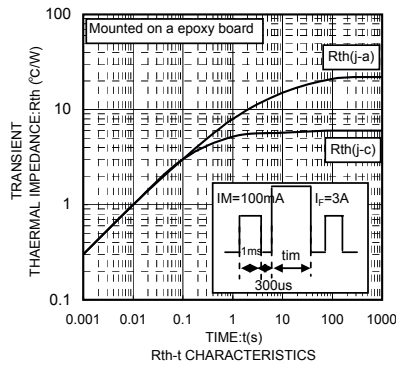
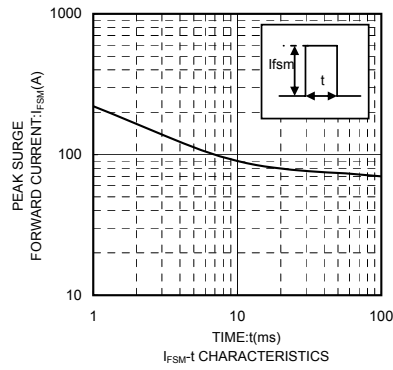
(\*1) Business frequencies, Rating of R-load,  $T_c=128^\circ\text{C}$ ,  $1/2 I_O$  per diode

● **Electrical characteristic (Ta=25°C)**

| Parameter             | Symbol        | Min. | Typ. | Max. | Unit          | Conditions                           |
|-----------------------|---------------|------|------|------|---------------|--------------------------------------|
| Forward voltage       | $V_F$         | -    | 0.87 | 0.93 | V             | $I_F=3A$                             |
| Reverse current       | $I_R$         | -    | 0.01 | 10   | $\mu\text{A}$ | $V_R=200V$                           |
| Reverse recovery time | $t_{rr}$      | -    | 14   | 25   | ns            | $I_F=0.5A, I_R=1A, I_{rr}=0.25^*I_R$ |
| Thermal impedance     | $\theta_{jc}$ | -    | -    | 6    | °C/W          | JUNCTION TO CASE                     |

●Electrical characteristic curves





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