

Super Fast Recovery Diode

RF04UA2D

●Series

Standard Fast Recovery

●Applications

High frequency rectifier

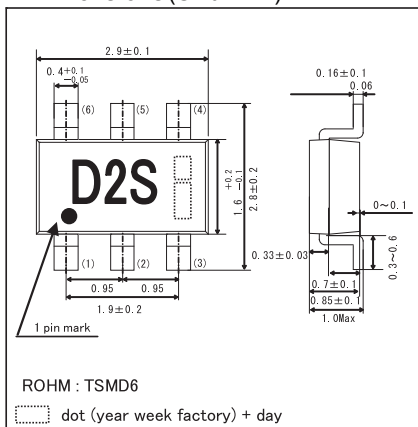
●Features

- 1) Surface mounting type (TSM6)
- 2) High reliability

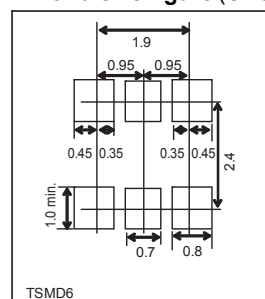
●Construction

Silicon epitaxial planer

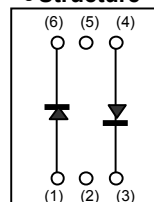
●Dimensions (Unit : mm)



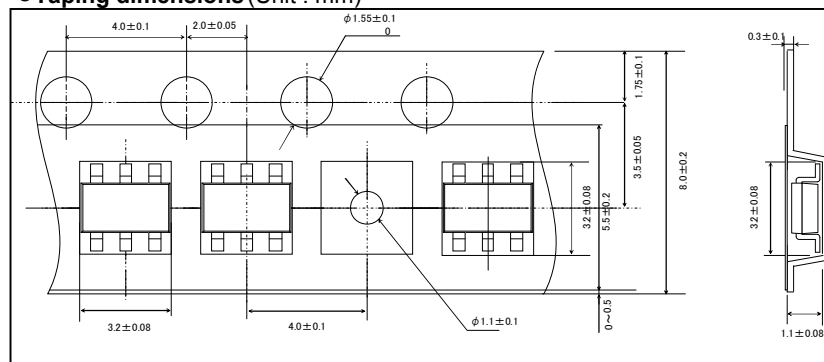
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

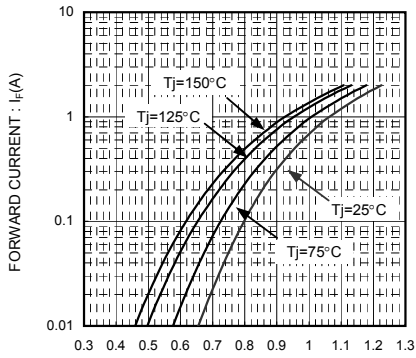
| Parameter | Symbol | Conditions | Limits | Unit | |
|-----------------------------------|-----------|--|---------------------------------------|------|---|
| Repetitive peak Reverse voltage | V_{RM} | | 200 | V | |
| Reverse voltage | V_R | Direct voltage | 200 | V | |
| Average rectified forward current | $I_o/2$ | Glass epoxy substrate mounted 60Hz half sin wave, resistive load | $T_a=25^\circ C$ $T_c=130^\circ C$ | 0.4 | A |
| Forward current surge peak | I_{FSM} | 60Hz half sin wave, Non-repetitive one cycle peak value, $T_j=25^\circ C$ | 1 | A | |
| Junction temperature | T_j | | 150 | °C | |
| Storage temperature | T_{stg} | | -40 to +150 | °C | |

(* Standard of per diode)

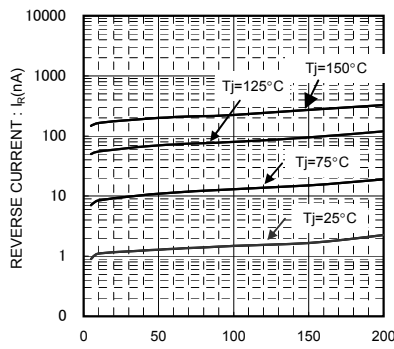
●Electrical characteristics (Tj=25°C)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|----------|--|------|------|------|------|
| Forward voltage | V_F | $I_F=0.2A$ | — | 0.86 | 0.98 | V |
| Reverse current | I_R | $V_R=200V$ | — | 0.01 | 10 | μA |
| Reverse recovery time | t_{rr} | $I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$ | — | 11 | 25 | ns |

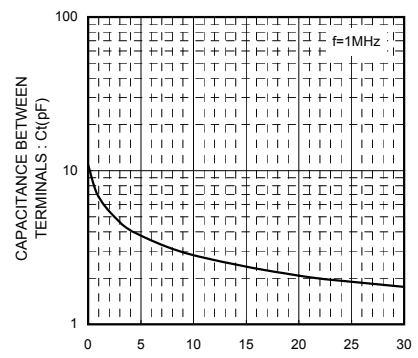
●Electrical characteristics curves



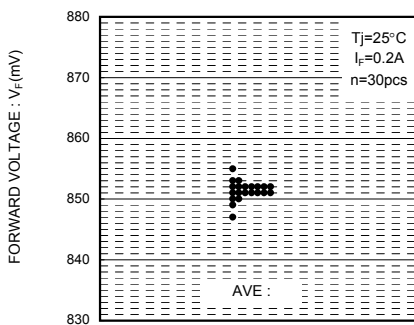
FORWARD VOLTAGE : V_f (V)
 V_f - I_f CHARACTERISTICS



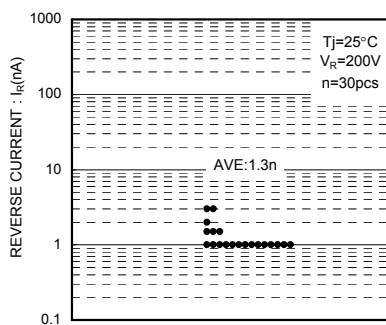
REVERSE VOLTAGE : V_r (V)
 V_r - I_r CHARACTERISTICS



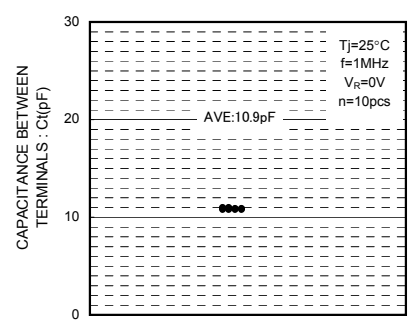
REVERSE VOLTAGE : V_r (V)
 V_r - C_t CHARACTERISTICS



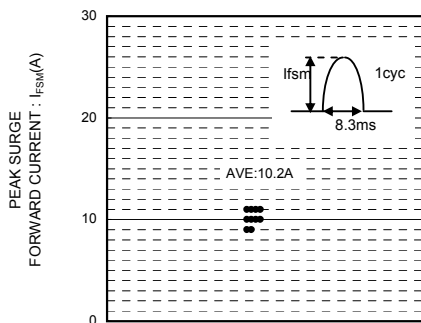
V_f DISPERSION MAP



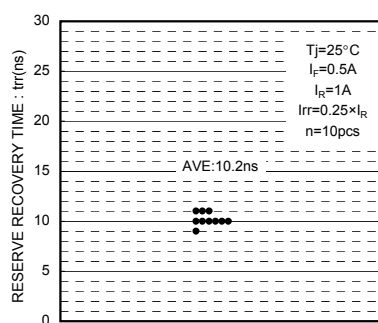
I_r DISPERSION MAP



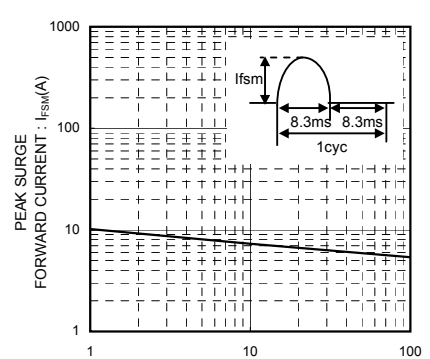
C_t DISPERSION MAP



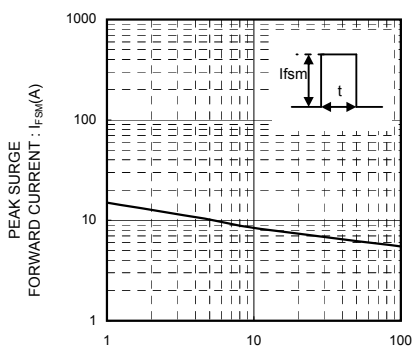
I_{FSM} DISPERSION MAP



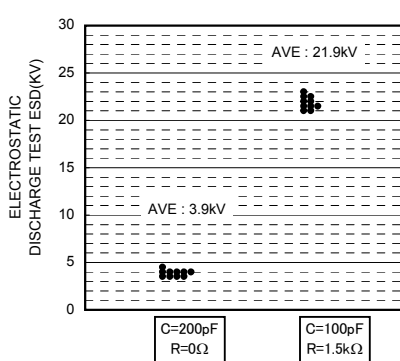
t_{rr} DISPERSION MAP



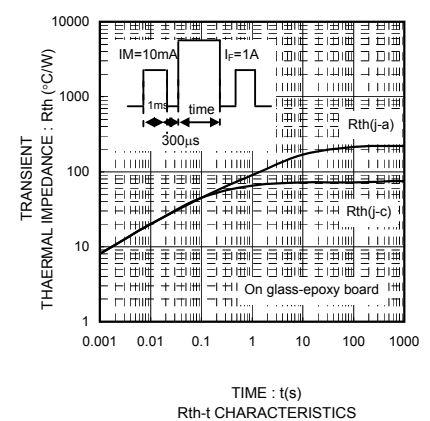
NUMBER OF CYCLES
 I_{FSM} -CYCLE CHARACTERISTICS



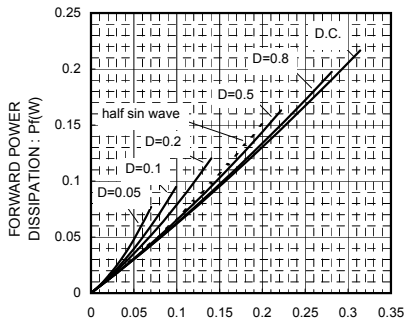
TIME : t (ms)
 I_{FSM} - t CHARACTERISTICS



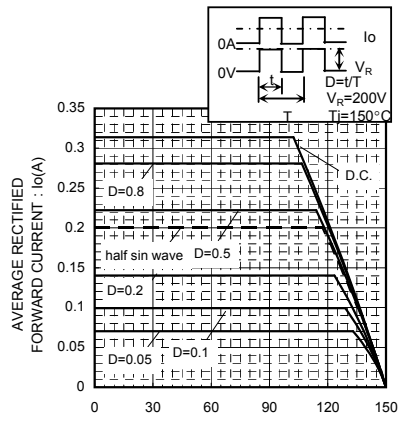
ESD DISPERSION MAP



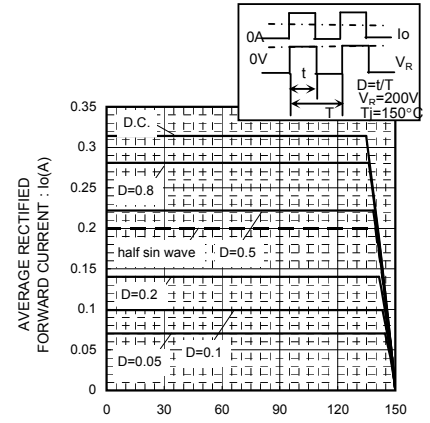
TIME : t (s)
 R_{th} - t CHARACTERISTICS



AVERAGE RECTIFIED FORWARD CURRENT : I_o(A)
I_o-P_F CHARACTERISTICS



AMBIENT TEMPERATURE : T_a(°C)
Derating Curve*(I_o-T_a)



CASE TEMPERATURE : T_c(°C)
Derating Curve(I_o-T_c)

Notes

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