

Super Fast Recovery Diode

RFUH20TB4S

●Serise

Super Fast Recovery

●Applications

General rectification

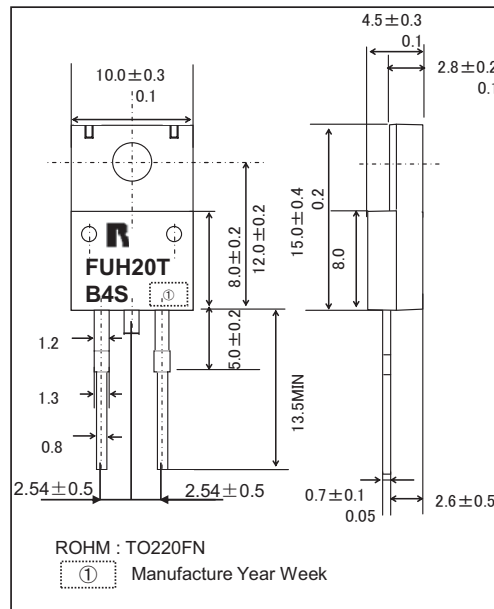
●Features

- 1) Ultra low switching loss
- 2) High current overload capacity

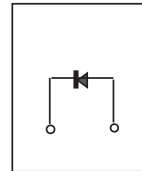
●Construction

Silicon epitaxial planer type

●Dimensions(Unit : mm)



●Structure

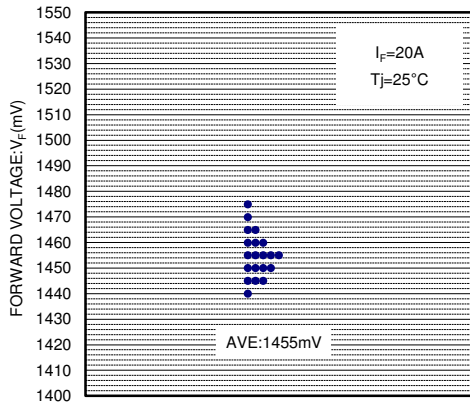
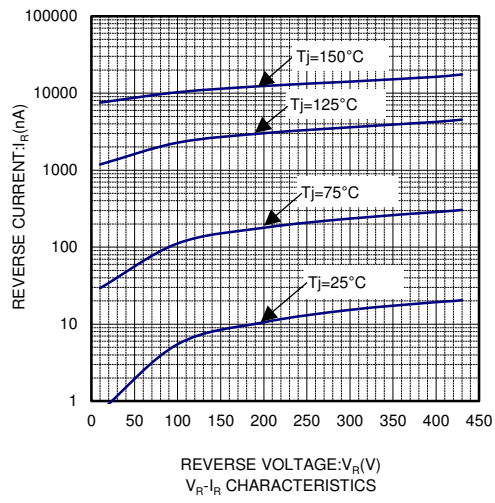
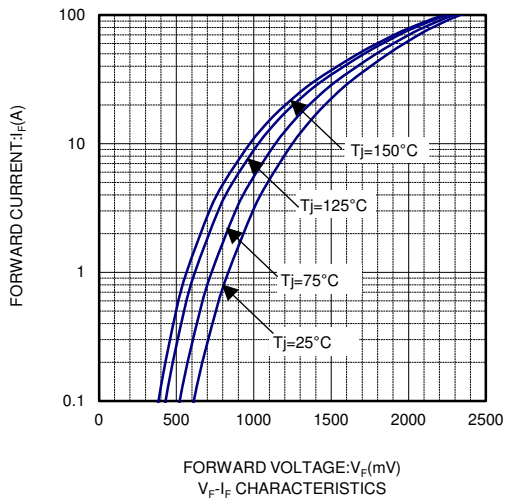


●Absolute Maximum Ratings(Tc=25°C)

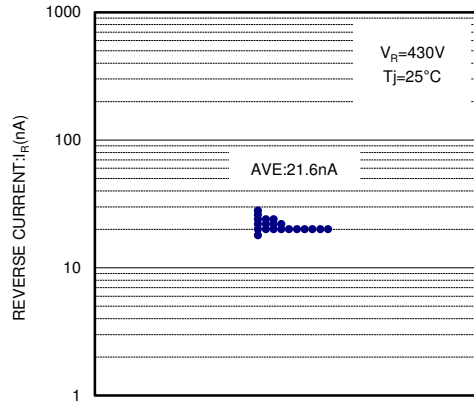
| Parameter | Symbol | Conditions | Limits | Unit |
|-----------------------------------|-----------|--|-------------|------|
| Repetitive peak reverse voltage | V_{RM} | Duty ≤ 0.5 | 430 | V |
| Reverse voltage | V_R | Direct voltage | 430 | V |
| Average rectified forward current | I_o | 60Hz half sin wave , Resistive load Tc=45°C | 20 | A |
| Forward current surge peak | I_{FSM} | 60Hz half sin wave , Non-repetitive at Tj=25°C | 100 | A |
| Junction temperature | Tj | | 150 | °C |
| Storage temperature | Tstg | | -55 to +150 | °C |

●Electrical Characteristics(Tj=25°C)

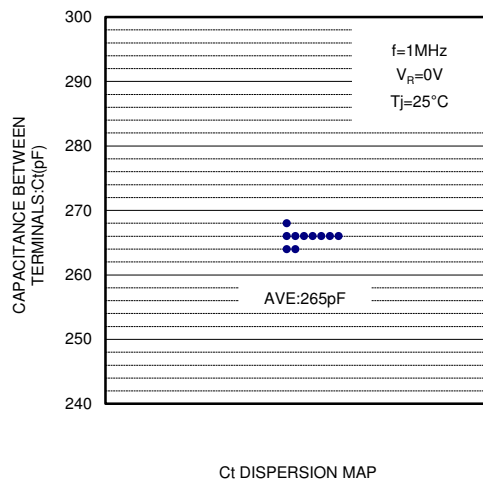
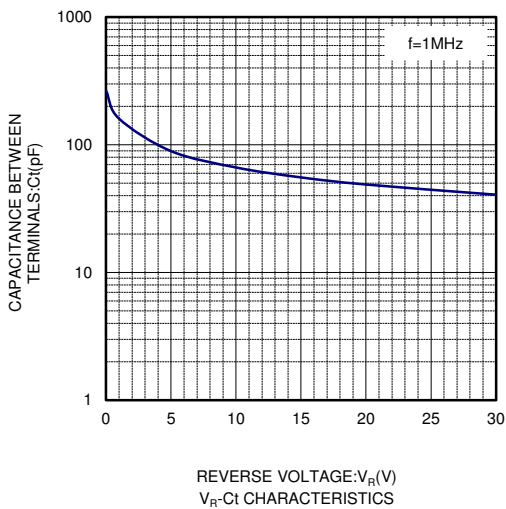
| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|----------|--|------|------|------|---------|
| Forward voltage | V_F | $I_F=20A$ | — | 1.45 | 1.7 | V |
| Reverse current | I_R | $V_R=430V$ | — | 0.05 | 10 | μA |
| Reverse recovery time | trr | $I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$ | — | 18 | 25 | ns |
| Thermal resistance | Rth(j-c) | Junction to case | — | — | 2.5 | °C/W |



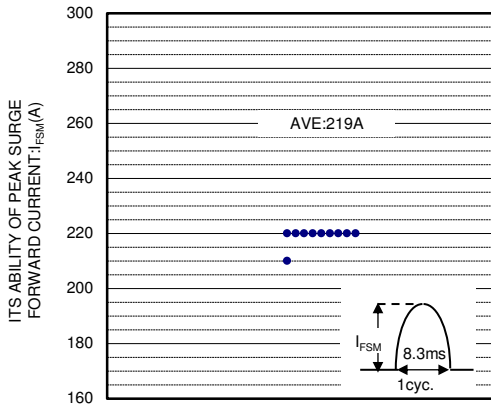
V_F DISPERSION MAP



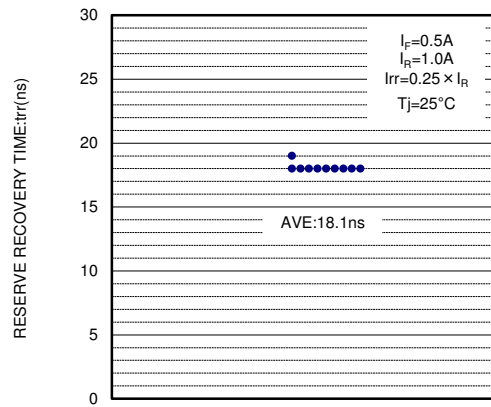
I_R DISPERSION MAP



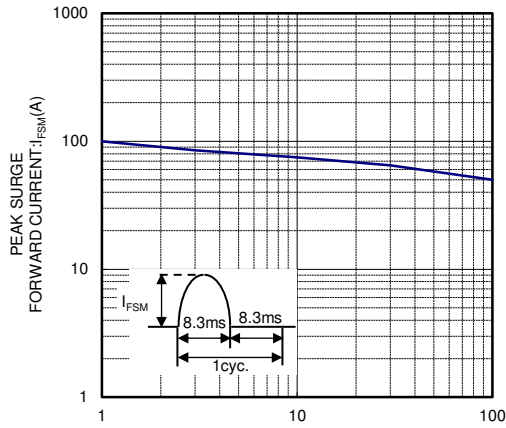
C_t DISPERSION MAP



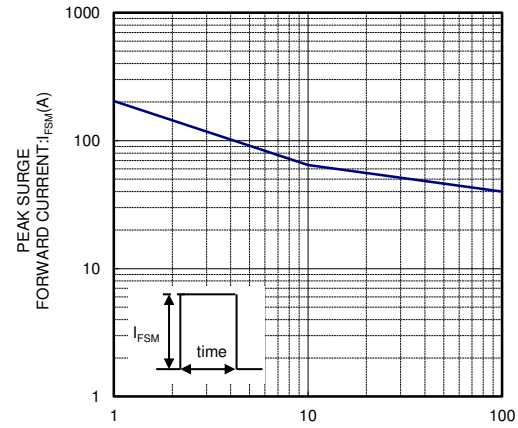
I_{FSM} DISPERSION MAP



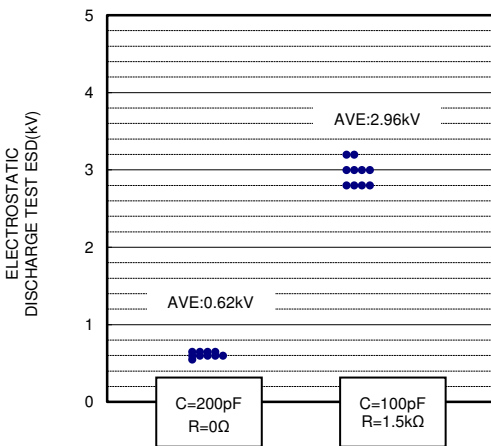
t_{rr} DISPERSION MAP



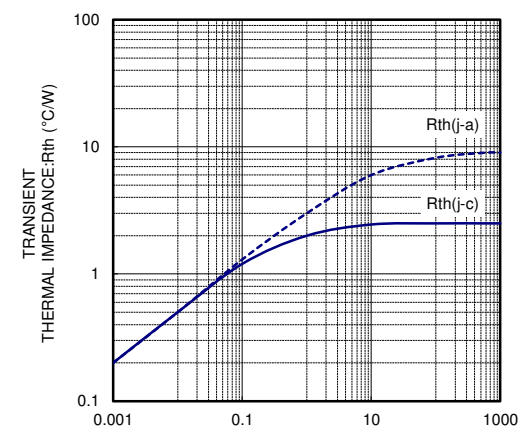
I_{FSM} CYCLE CHARACTERISTICS



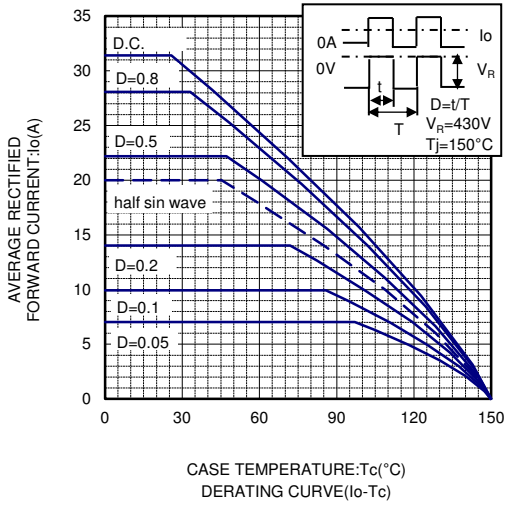
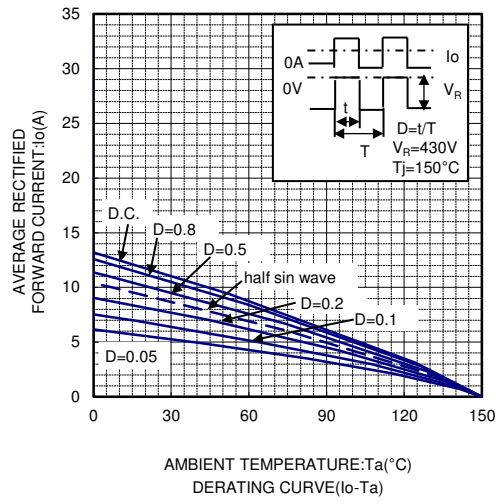
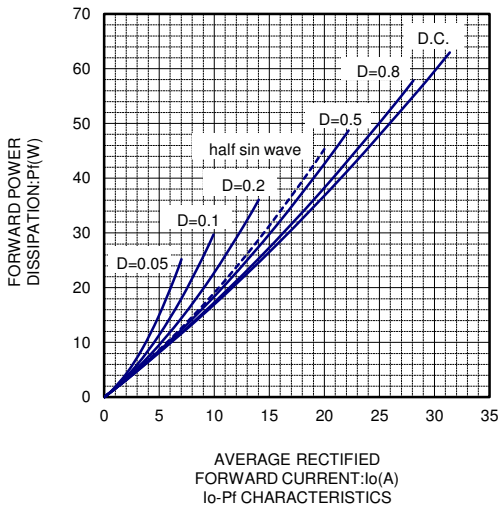
I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} - t CHARACTERISTICS



Notes

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