



**THE DATASHEET OF
1SR153-400T-31**



Rectifier diode

1SR153-400

●Applications

For fast rectifier

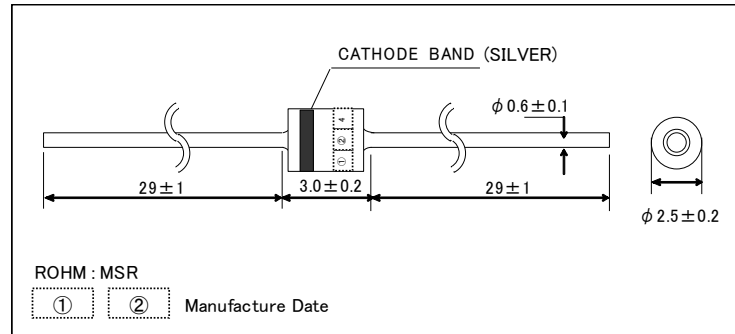
●Features

- 1) Cylindrical mold type. (MSR)
- 2) High reliability.
- 3) High switching speed.

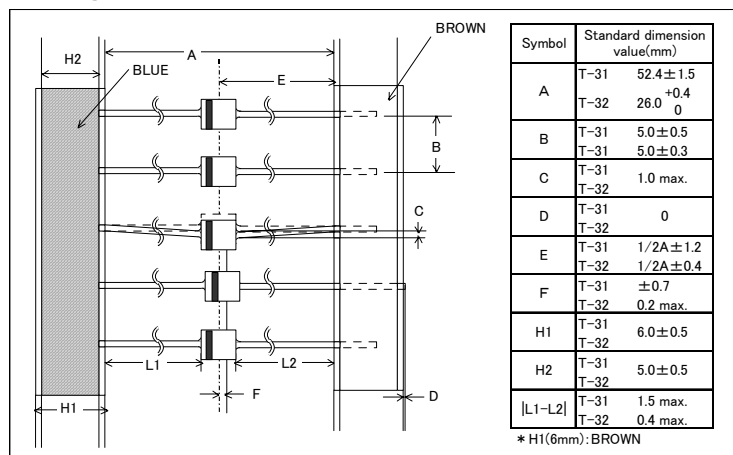
●Construction

Silicon diffused junction

●External dimensions (Unit : mm)



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------------------------|-----------|-------------|------|
| Maximum peak surge reverse voltage | V_{RMS} | 500 | V |
| Surge reverse voltage | V_R | 400 | V |
| Average rectified forward current (*1) | I_o | 1 | A |
| Forward current surge peak (60Hz·1cyc) | I_{FSM} | 30 | A |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -40 to +150 | °C |

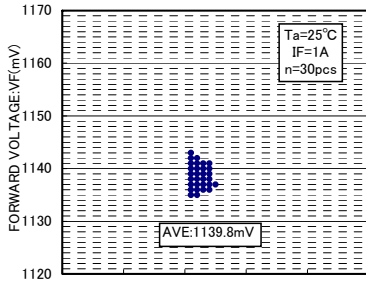
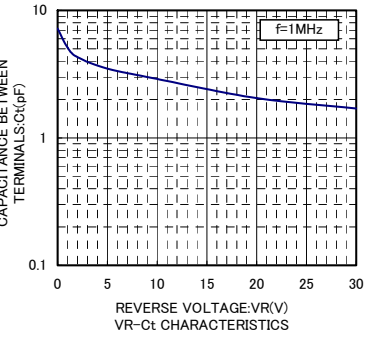
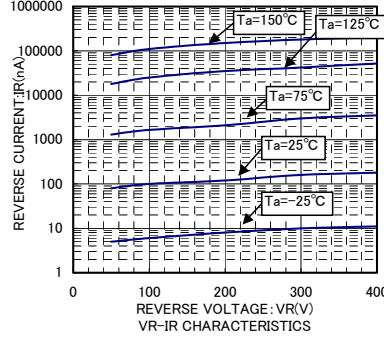
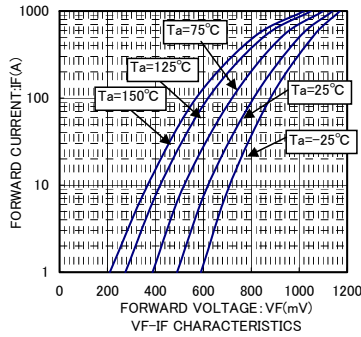
(*1) Mounting on alumina board

●Electrical characteristics (Ta=25°C)

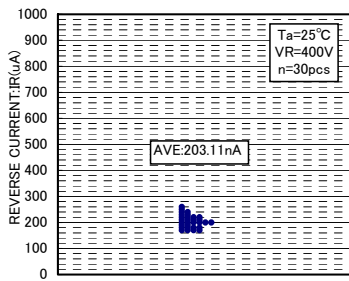
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------------|----------|------|------|------|------|----------------------------------|
| Forward voltage | V_F | - | - | 1.3 | V | $I_F=0.8A$ |
| Reverse current | I_R | - | - | 10 | uA | $V_R=400V$ |
| Reverse recovery time | t_{rr} | - | - | 0.4 | us | $I_F=10mA, I_R=10mA, I_{rr}=1mA$ |

Diodes

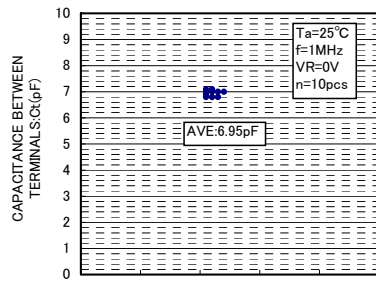
●Electrical characteristic curves (Ta=25°C)



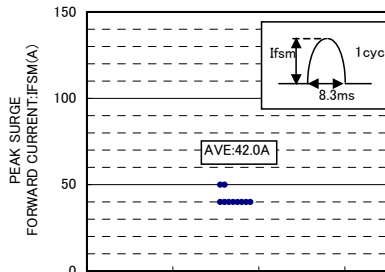
VF DISPERSION MAP



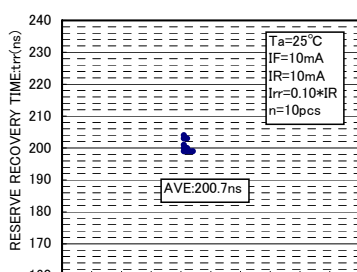
IR DISPERSION MAP



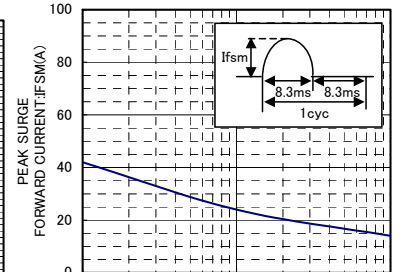
Ct DISPERSION MAP



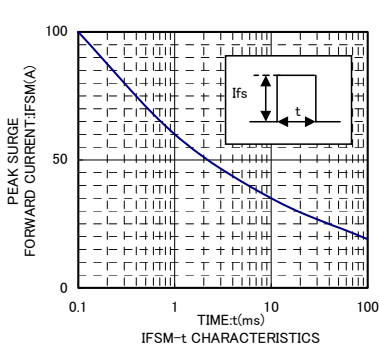
IFSM DISERSION MAP



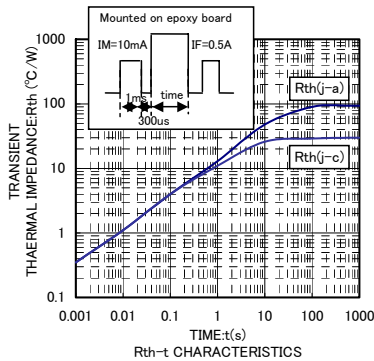
trr DISPERSION MAP



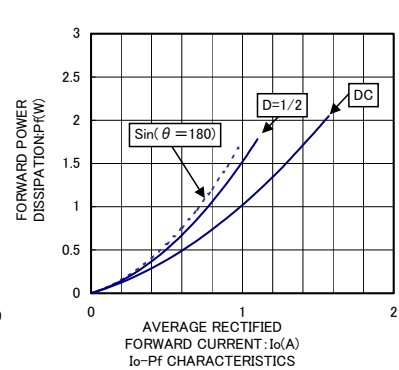
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

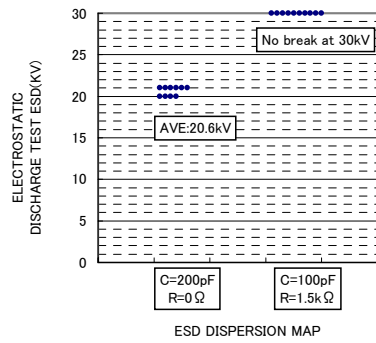
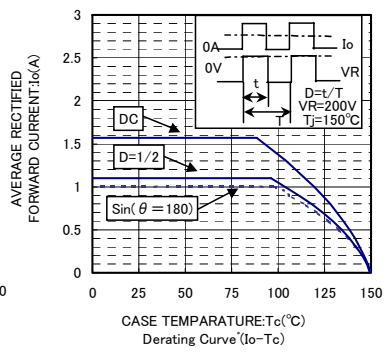
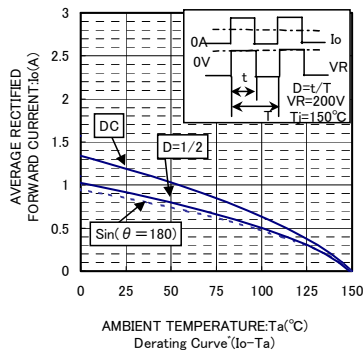
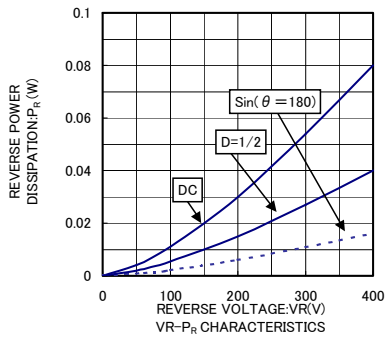


Rth-t CHARACTERISTICS



Io-Pf CHARACTERISTICS

Diodes



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