

## Rectifier diode

## 1SR139-400

## ●Applications

High speed rectification

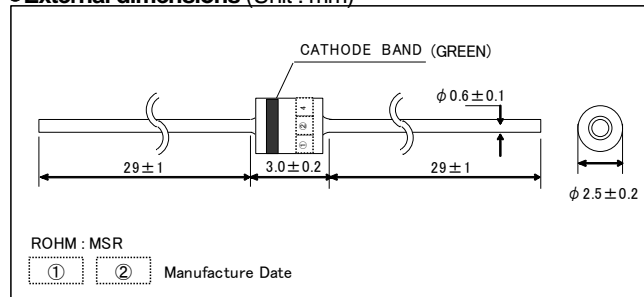
## ●Features

- 1) Cylindrical mold. (MSR)
- 2) High reliability.
- 3) Fast recovery speed.

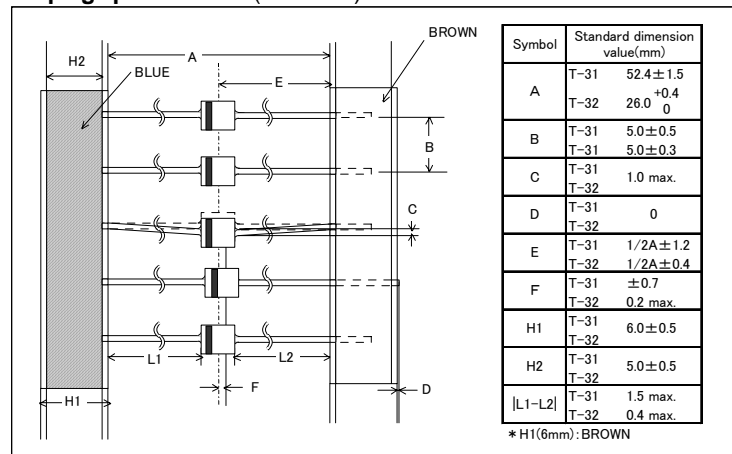
## ●Construction

Silicon diffused junction

## ●External dimensions (Unit : mm)



## ●Taping specifications (Unit : mm)



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

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

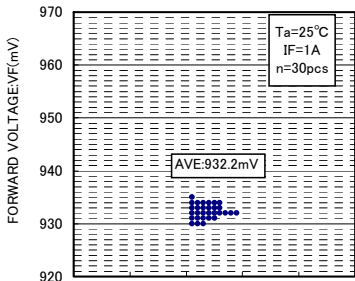
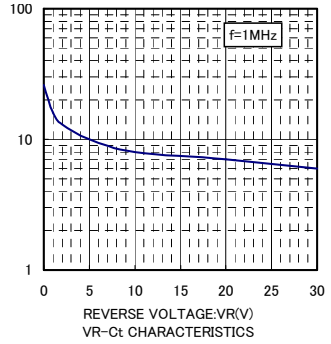
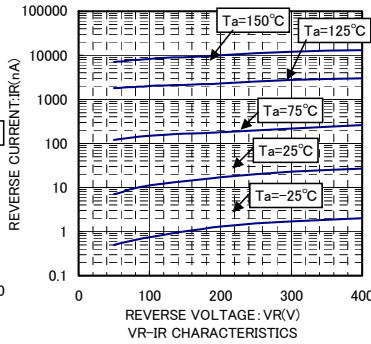
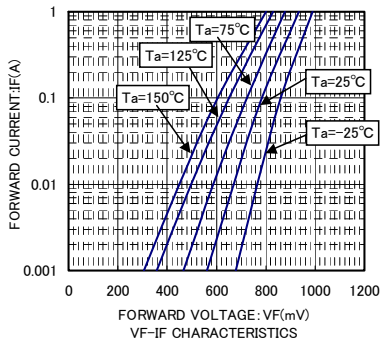
(\*1) Mounting on alumina board

## ●Electrical characteristics (Ta=25°C)

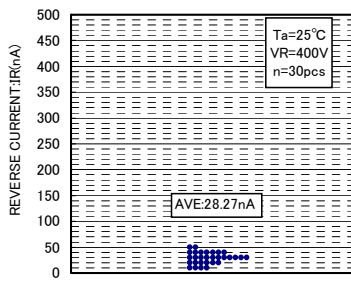
| Parameter       | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------|--------|------|------|------|------|------------|
| Forward voltage | $V_F$  | -    | -    | 1.1  | V    | $I_F=1.0A$ |
| Reverse current | $I_R$  | -    | -    | 10   | μA   | $V_R=400V$ |

Diodes

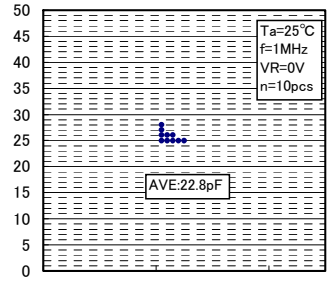
●Electrical characteristic curves (Ta=25°C)



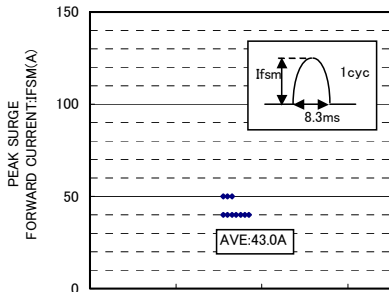
VF DISPERSION MAP



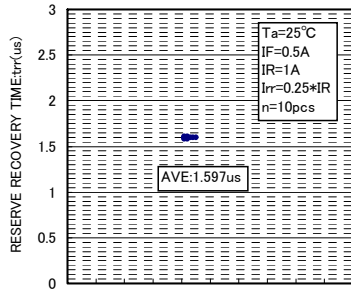
IR DISPERSION MAP



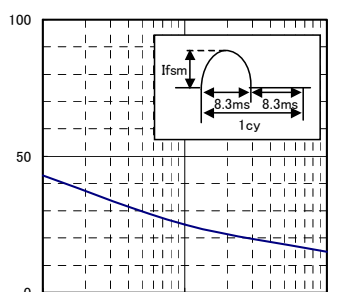
Ct DISPERSION MAP



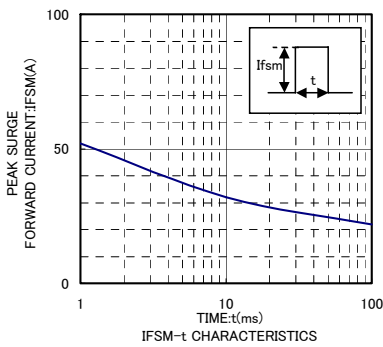
IFSM DISERSION MAP



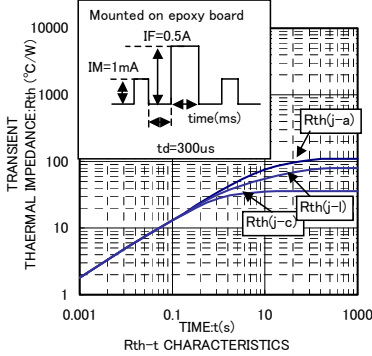
trr DISPERSION MAP



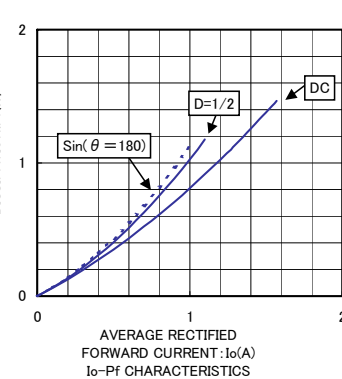
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

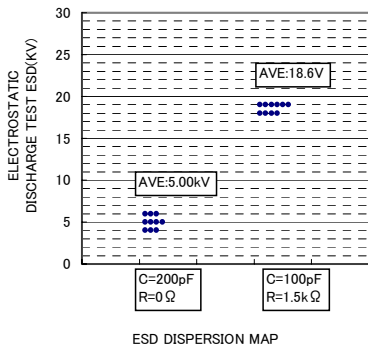
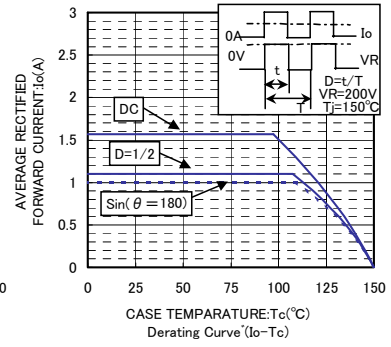
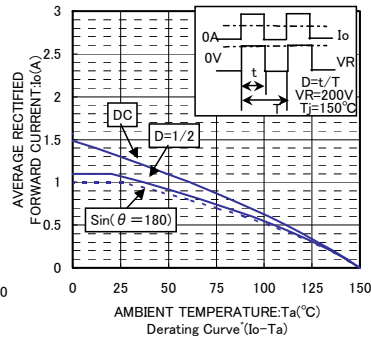
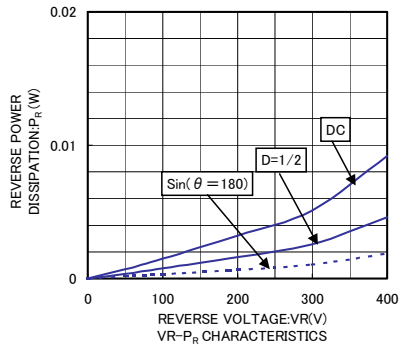


Rth-t CHARACTERISTICS



Io-PF CHARACTERISTICS

Diodes



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