

# Switching diode

## 1SS400

### ●Applications

High speed switching

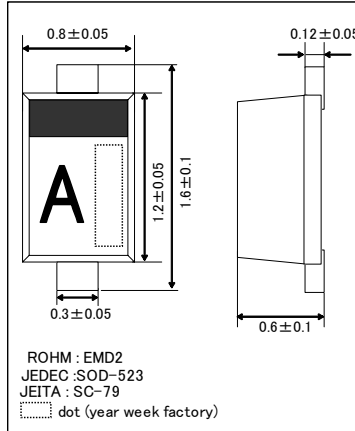
### ●Features

- 1) Ultra small mold type. (EMD2)
- 2) High reliability.

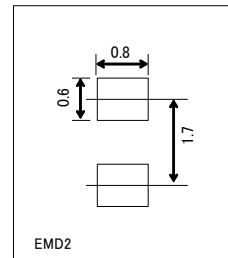
### ●Construction

Silicon epitaxial planar

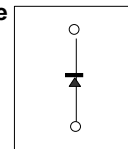
### ●External dimensions (Unit : mm)



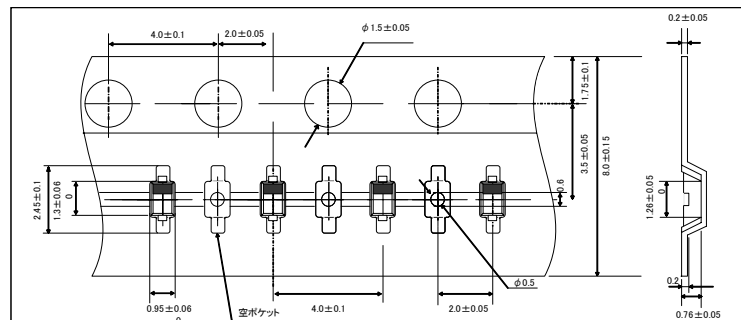
### ●Land size figure (Unit : mm)



### ●Structure



### ●Taping dimensions (Unit : mm)



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

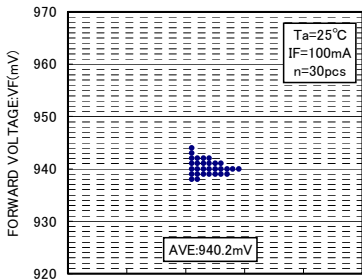
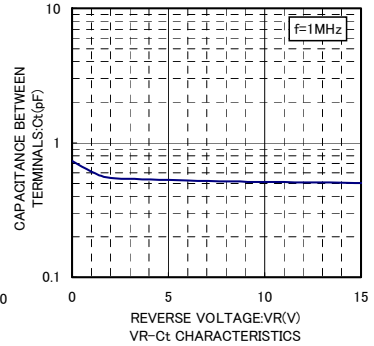
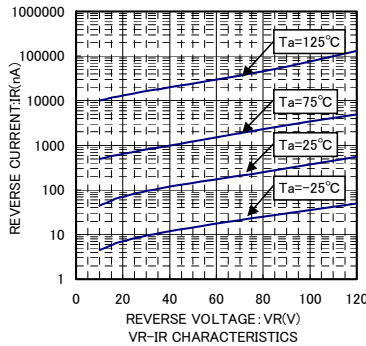
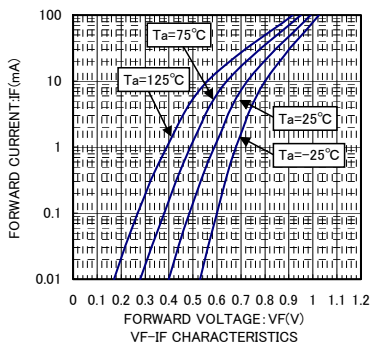
| Parameter                         | Symbol      | Limits      | Unit |
|-----------------------------------|-------------|-------------|------|
| Reverse voltage (repetitive peak) | $V_{RM}$    | 90          | V    |
| Reverse voltage (DC)              | $V_R$       | 80          | V    |
| Forward voltage (repetitive peak) | $I_{FM}$    | 225         | mA   |
| Average rectified forward current | $I_o$       | 100         | mA   |
| Surge current (t=1s)              | $I_{surge}$ | 500         | mA   |
| Junction temperature              | $T_j$       | 125         | °C   |
| Storage temperature               | $T_{stg}$   | -55 to +125 | °C   |

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

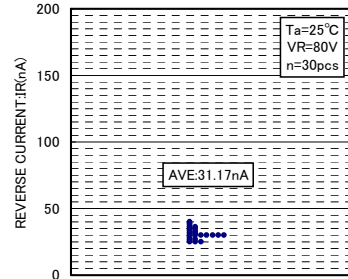
| Parameter                    | Symbol   | Min. | Typ. | Max. | Unit | Conditions  |
|------------------------------|----------|------|------|------|------|---|
| Forward voltage              | $V_F$    | -    | -    | 1.2  | V    | $I_F=100\text{mA}$                                      |
| Reverse current              | $I_R$    | -    | -    | 0.1  | μA   | $V_R=80\text{V}$  |
| Capacitance between terminal | $C_t$    | -    | -    | 3    | pF   | $V_R=0.5\text{V}$ , $f=1\text{MHz}$                     |
| Reverse recovery time        | $t_{rr}$ | -    | -    | 4    | ns   | $V_R=6\text{V}$ , $I_F=10\text{mA}$ , $R_L=100\ \Omega$ |

Diodes

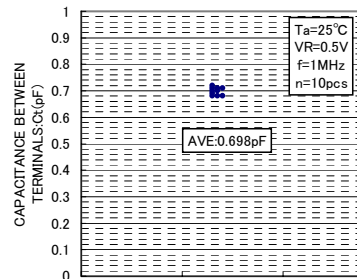
● Electrical characteristic curves (Ta=25°C)



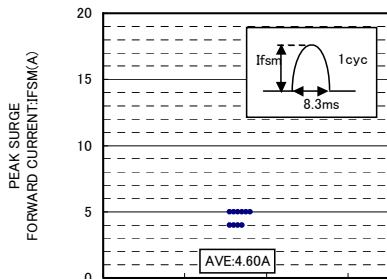
VF DISPERSION MAP



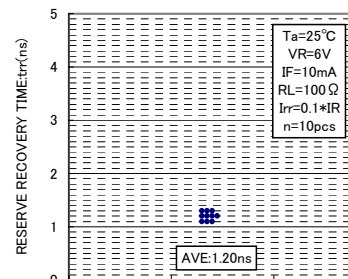
IR DISPERSION MAP



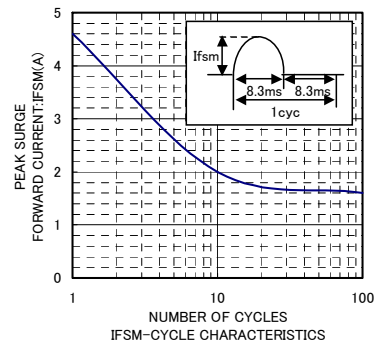
Ct DISPERSION MAP



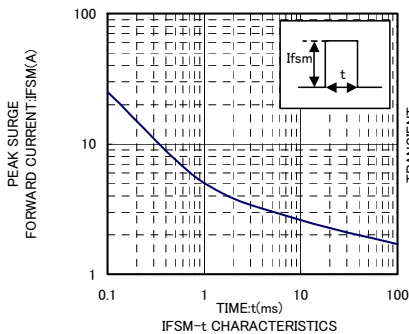
IFSM DISERSION MAP



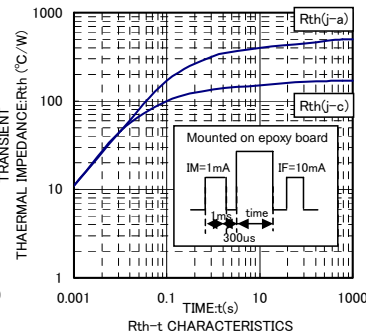
trr DISPERSION MAP



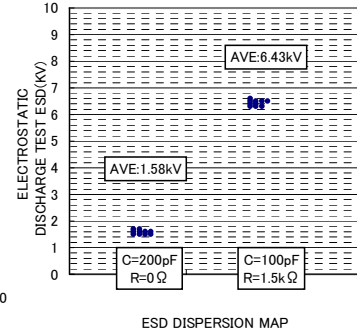
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS



Rth-t CHARACTERISTICS



ESD DISPERSION MAP

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