

Schottky Barrier Diode

RB051L-40

●Applications

General rectification

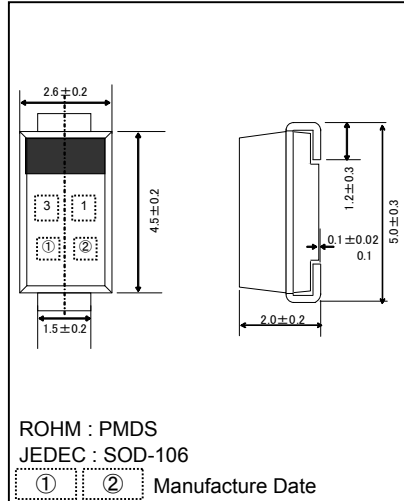
●Features

- 1) Small power mold type. (PMDS)
- 2) Low VF
- 3) High reliability

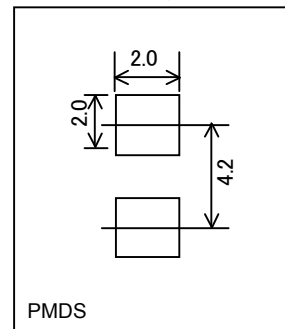
●Construction

Silicon epitaxial planar

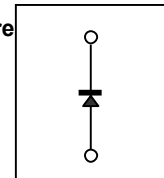
●Dimensions (Unit : mm)



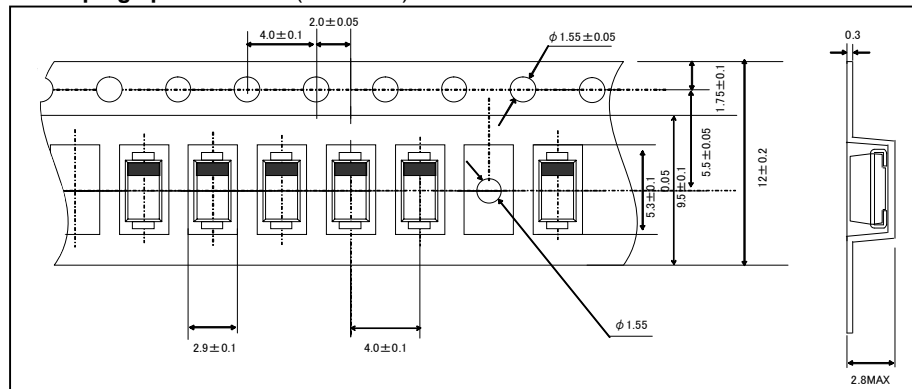
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)



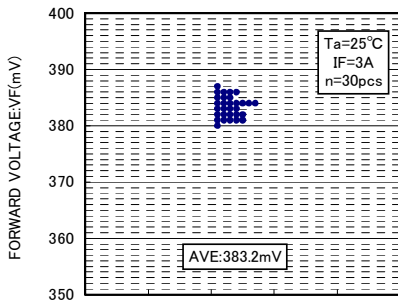
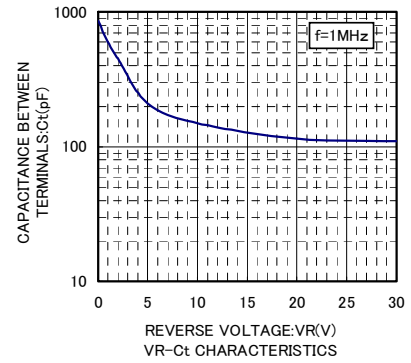
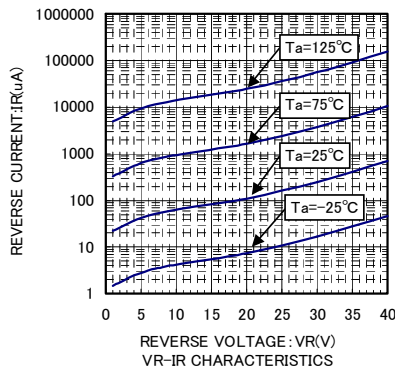
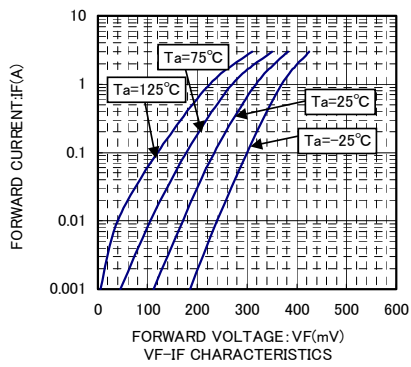
●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|--|-----------|-------------|------|
| Reverse voltage (repetitive peak) | V_{RM} | 40 | V |
| Reverse voltage (DC) | V_R | 20 | V |
| Average rectified forward current | I_o | 3 | A |
| Forward current surge peak (60Hz·1cyc) | I_{FSM} | 70 | A |
| Junction temperature | T_j | 125 | °C |
| Storage temperature | T_{stg} | -40 to +125 | °C |

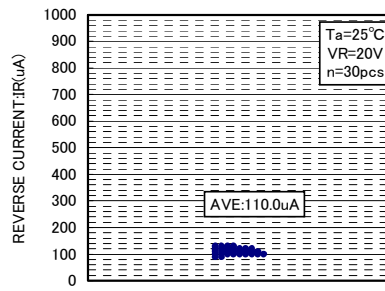
(*1) Mounted on epoxyboard. 180°Half sine wave

●Electrical characteristics (Ta=25°C)

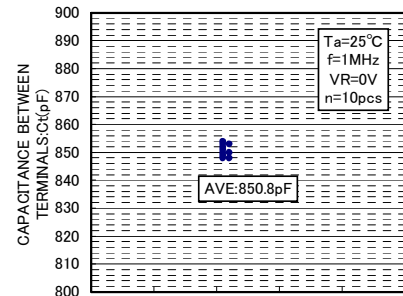
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------|----------|------|------|------|------|------------|
| Forward voltage | V_{F1} | - | - | 0.35 | V | $I_F=1.0A$ |
| | V_{F2} | - | - | 0.45 | V | $I_F=3.0A$ |
| Reverse current | I_{R1} | - | - | 1 | mA | $V_R=20V$ |
| | I_{R2} | - | - | 150 | μA | $V_R=15V$ |



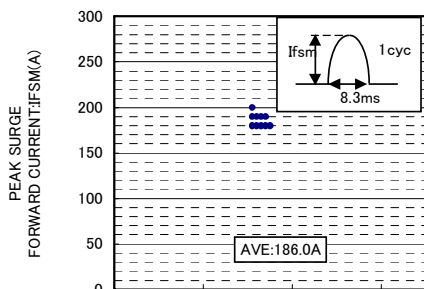
VF DISPERSION MAP



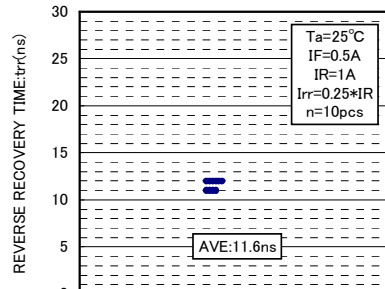
IR DISPERSION MAP



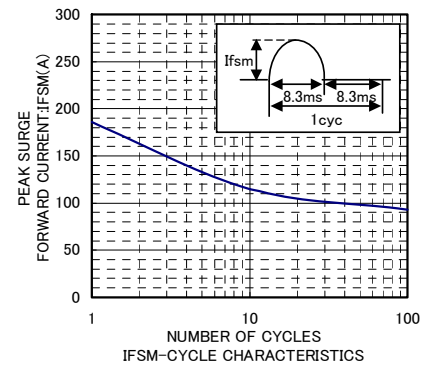
Ct DISPERSION MAP



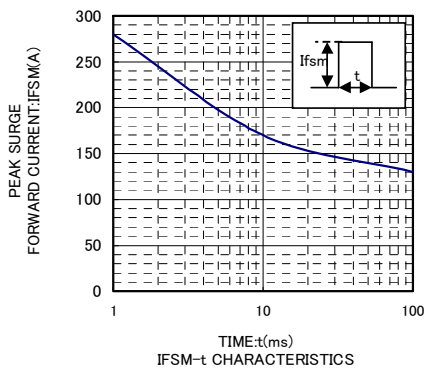
IFSM DISERSION MAP



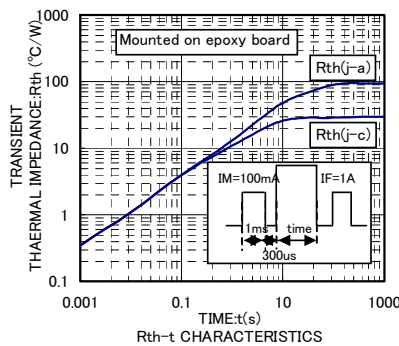
trr DISPERSION MAP



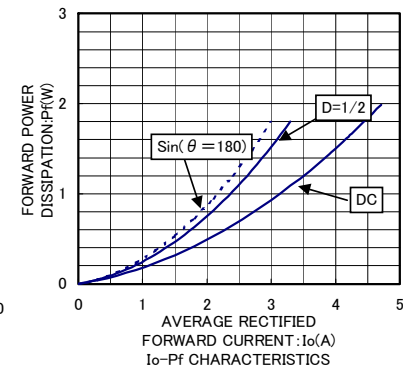
IFSM-CYCLE CHARACTERISTICS



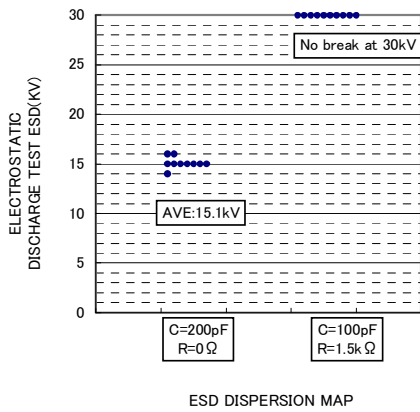
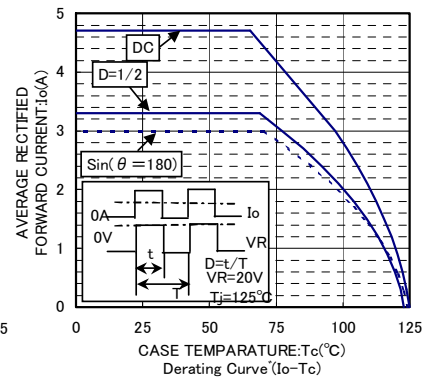
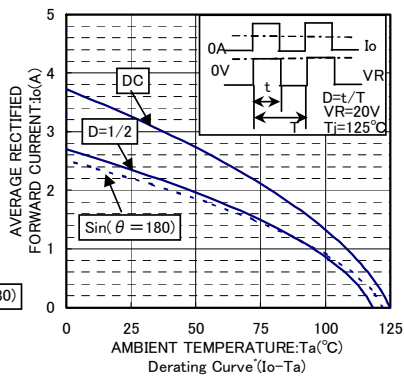
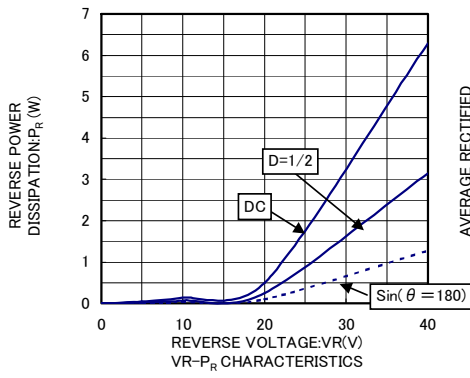
IFSM-t CHARACTERISTICS



Rth-t CHARACTERISTICS



Io-Pf CHARACTERISTICS



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