

1 Scope

The present specifications shall apply to an RF1B.

2 Outline

| | |
|--------------|------------------------------|
| Type | Silicon Diode |
| Structure | Resin Molded |
| Applications | High Frequency Rectification |

3 Flammability

UL94V-0(Equivalent)

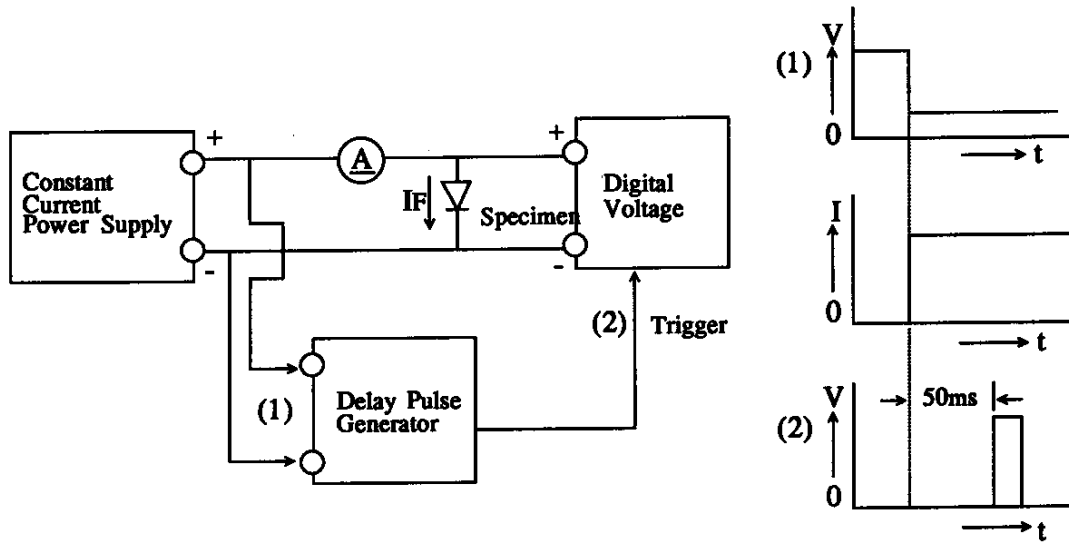
4 Absolute maximum ratings

| No. | Item | Symbol | Unit | Rating | Conditions |
|-----|--------------------------------|-------------|-------------|-------------|--|
| 1 | Transient Peak Reverse Voltage | V_{RSM} | V | 850 | |
| 2 | Peak Reverse Voltage | V_{RM} | V | 800 | |
| 3 | Average Forward Current | $I_{F(AV)}$ | A | 0.6 | Refer to derating curve in Section 7 |
| 4 | Peak Surge Forward Current | I_{FSM} | A | 15 | 10ms. Half sine wave, one shot |
| 5 | I^2t Limiting Value | I^2t | A^2s | 1.125 | $1\text{ ms} \leq t \leq 10\text{ ms}$ |
| 6 | Junction Temperature | T_j | $^{\circ}C$ | -40 to +150 | |
| 7 | Storage Temperature | T_{stg} | $^{\circ}C$ | -40 to +150 | |

5 Electrical characteristics ($T_a=25^{\circ}C$, unless otherwise specified)

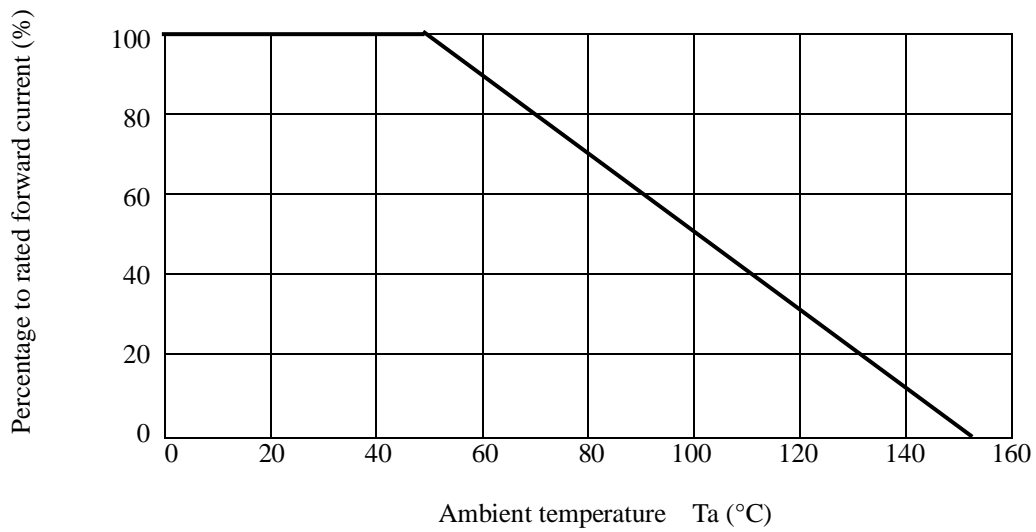
| No. | Item | Symbol | Unit | Value | Conditions |
|-----|--|---------------|---------------|----------|--|
| 1 | Forward Voltage Drop | V_F | V | 2.0 max. | $I_F=1.0A$ |
| 2 | Reverse Leakage Current | I_R | μA | 10 max. | $V_R=V_{RM}$ |
| 3 | Reverse Leakage Current Under High Temperature | $H \cdot I_R$ | μA | 200 max. | $V_R=V_{RM}, T_j=100^{\circ}C$ |
| 4 | Reverse Recovery Time | trr-1 | ns | 400 max. | $I_F=I_{RP}=10mA$ 90% Recovery point, $T_j=25^{\circ}C$ |
| | | trr-2 | ns | 180 max. | $I_F=10mA, I_{RP}=20mA$ 75% Recovery point, $T_j=25^{\circ}C$ |
| 5 | Thermal Resistance | $R_{th(j-l)}$ | $^{\circ}C/W$ | 15 max. | Between Junction and Lead |

6 V_F test and test circuit



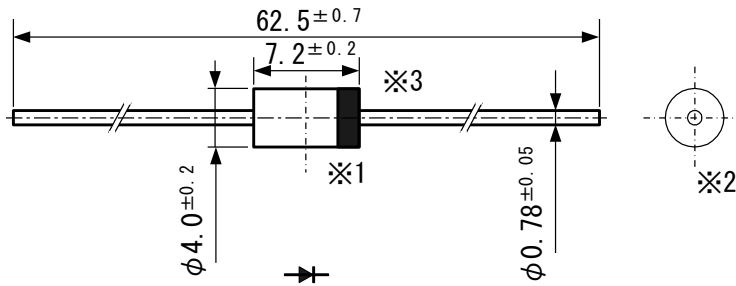
7 Derating

Derating to the ambient temperature.
 Power loss generated by voltage is not taken into consideration.



8 Package information

8-1 Package type, physical dimensions and material



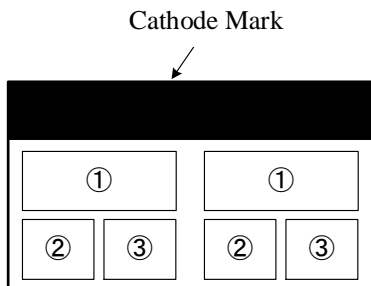
Dimensions in mm

- *1 The allowance position of Body against the center of whole lead wire is 0.5mm(max.)
- *2 The centric allowance of lead wire against center of physical body is 0.3mm(max.)
- *3 The burr may exit up to 2mm from the body of lead

8-2 Appearance

The body shall be clean and shall not bear any stain, rust or flaw.

8-3 Marking



- ① Type number : RF1B
- ② Lot number 1
 - First digit: Last digit of Year
 - Second digit: Month
 - From 1 to 9 for Jan. to Sep.
 - O for Oct., N for Nov., and D for Dec.
- ③ Lot number 2 (ten days)
 - Top of the month
 - Middle of month
 - End of month

The color of marking must be white.