# MA3X198 (MA198)

## Silicon epitaxial planar type

For wave detection

### ■ Features

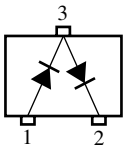
- Two elements contained in one package, allowing high-density mounting
- Soft recovery characteristic ($t_{rr}$ = 100 ns)

### ■ Package

- Code
  Mini3-G1
- Pin Name
  1: Anode 1
  2: Cathode 2
  3: Cathode 1, Anode 2

### ■ Marking Symbol: M2F

### ■ Internal Connection




### ■ Absolute Maximum Ratings $T_a$ = 25°C

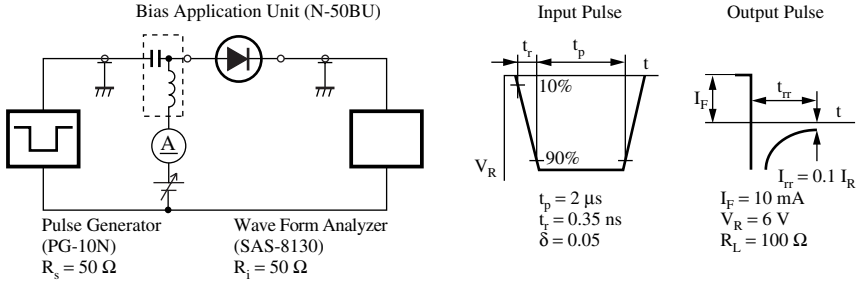
| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Reverse voltage | | $V_R$ | 40 | V |
| Repetitive peak reverse voltage | | $V_{RRM}$ | 40 | V |
| Forward current (Average) | Single | $I_{F(AV)}$ | 100 | mA |
| | Series | | 75 | |
| Repetitive peak forward current | Single | $I_{FRM}$ | 225 | mA |
| | Series | | 170 | |
| Non-repetitive peak forward surge current* | Single | $I_{FSM}$ | 500 | mA |
| | Series | | 325 | |
| Junction temperature | | $T_j$ | 150 | °C |
| Storage temperature | | $T_{stg}$ | −55 to +150 | °C |

Note) ∗: t = 1 s

### ■ Electrical Characteristics $T_a$ = 25°C ± 3°C

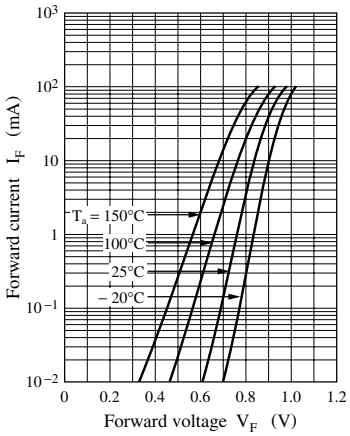
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | $V_{F1}$ | $I_F$ = 100 µA | 0.65 | | 0.72 | V |
| | $V_{F2}$ | $I_F$ = 100 mA | | | 1.2 | V |
| Reverse current | $I_R$ | $V_R$ = 40 V | | | 10 | nA |
| Terminal capacitance | $C_t$ | $V_R$ = 6 V, f = 1 MHz | | 1.0 | 2.0 | pF |
| Reverse recovery time* | $t_{rr}$ | $I_F$ = 10 mA, $V_R$ = 6 V<br>$I_{rr}$ = 0.1 $I_R$, $R_L$ = 100 Ω | | | 100 | ns |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 10 MHz.
3. ∗: $t_{rr}$ measurement circuit

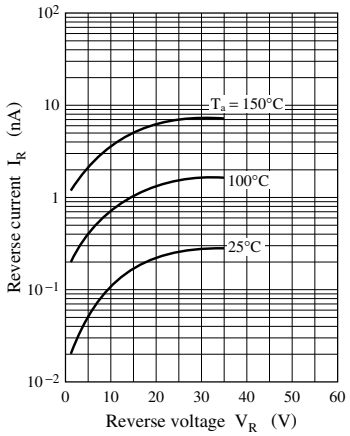



Note) The part number in the parenthesis shows conventional part number.

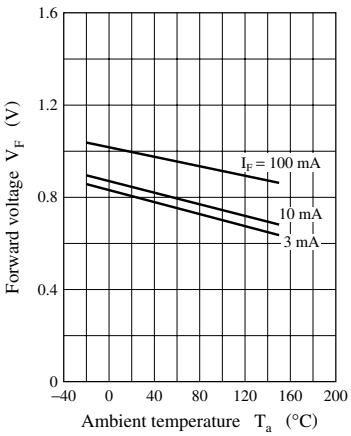
$I_F$ — $V_F$



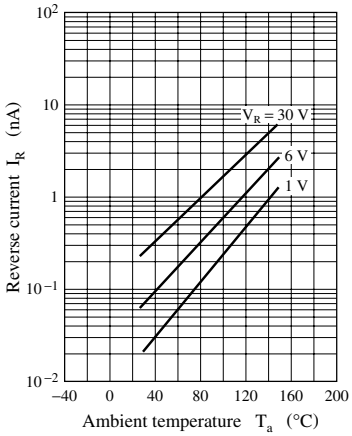

$I_R$ — $V_R$



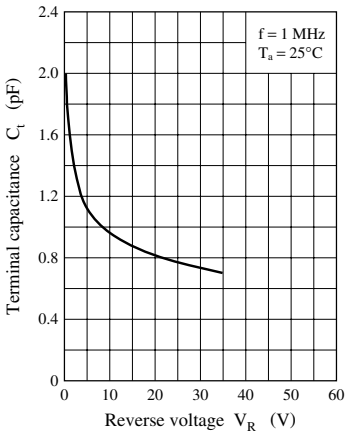

$V_F$ — $T_a$



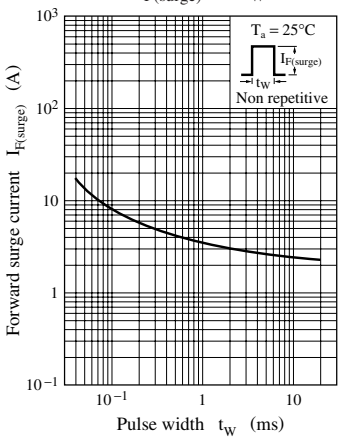

$I_R$ — $T_a$




$C_t$ — $V_R$

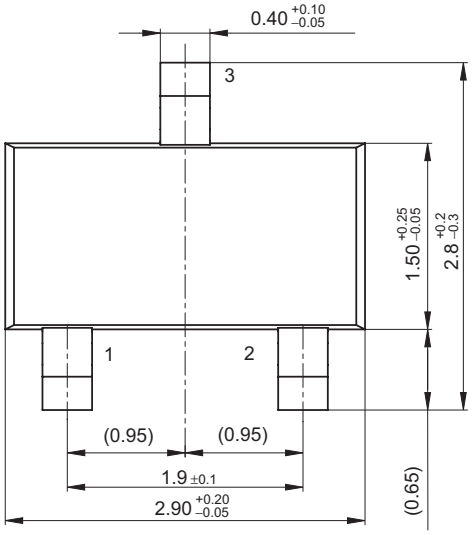


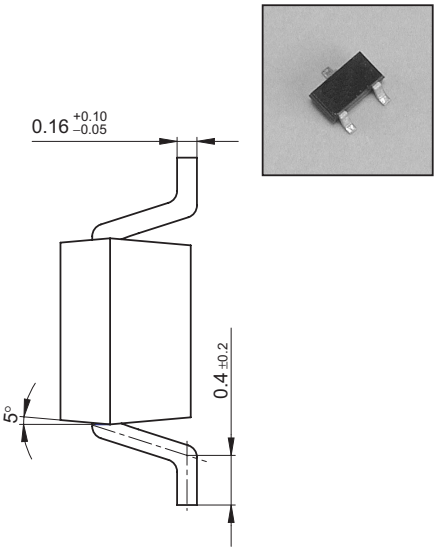

$I_{F(surge)}$ — $t_W$

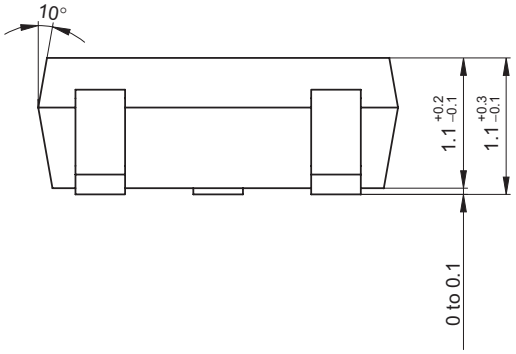


## Mini3-G1

Unit: mm



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