# MA2Z7850G

## Silicon epitaxial planar type

For super high speed switching
For small current rectification

### ■ Features

- High-density mounting is possible
- Forward current (Average) $I_{F(AV)}$ = 100 mA rectification is possible
- Optimum for high frequency rectification because of its short reverse recovery time $t_{rr}$
- Low forward voltage $V_F$ and good rectification efficiency
- Reverse voltage $V_R$ = 50 V is guaranteed

### ■ Package

- Code
  SMini2-F3
- Pin Name
  1: Anode
  2: Cathode

### ■ Marking Symbol: 2E

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

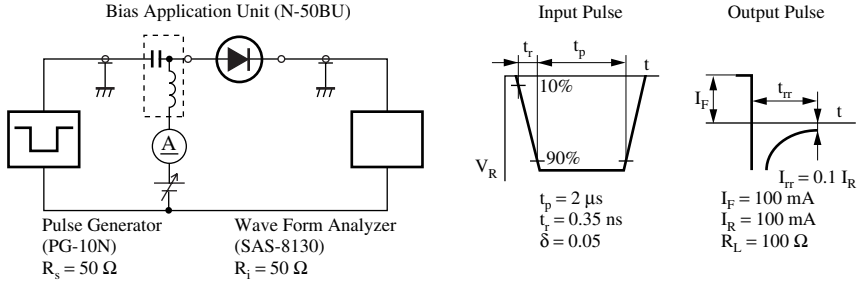
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Reverse voltage | $V_R$ | 50 | V |
| Repetitive peak reverse voltage | $V_{RRM}$ | 50 | V |
| Forward current (Average) | $I_{F(AV)}$ | 100 | mA |
| Peak forward current | $I_{FM}$ | 300 | mA |
| Non-repetitive peak forward surge current * | $I_{FSM}$ | 1 | A |
| Junction temperature | $T_j$ | 125 | °C |
| Storage temperature | $T_{stg}$ | −55 to +125 | °C |

Note) *: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

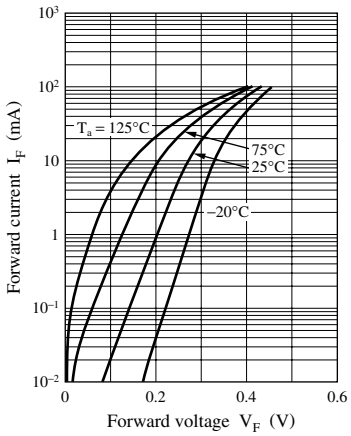
### ■ Electrical Characteristics $T_a$ = 25°C ± 3°C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | $V_F$ | $I_F$ = 100 mA | | | 0.55 | V |
| Reverse current | $I_R$ | $V_R$ = 50 V | | | 30 | μA |
| Terminal capacitance | $C_t$ | $V_R$ = 0 V, f = 1 MHz | | 25 | | pF |
| Reverse recovery time * | $t_{rr}$ | $I_F = I_R$ = 100 mA<br>$I_{rr}$ = 0.1 $I_R$, $R_L$ = 100 Ω | | 3.0 | | ns |

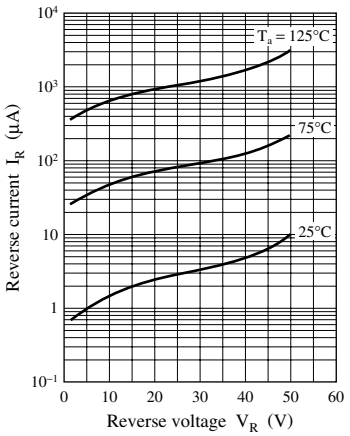
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 200 MHz.
4. *: $t_{rr}$ measurement circuit



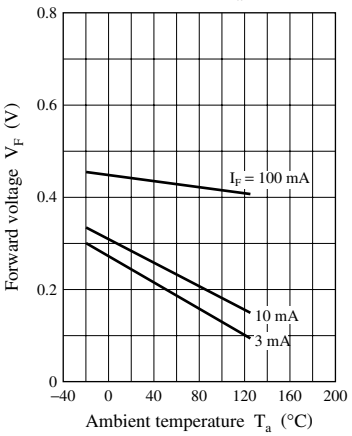
$I_F$ — $V_F$



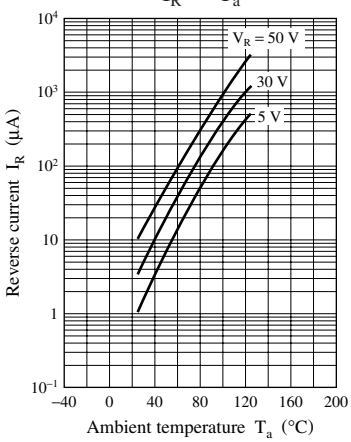

$I_R$ — $V_R$



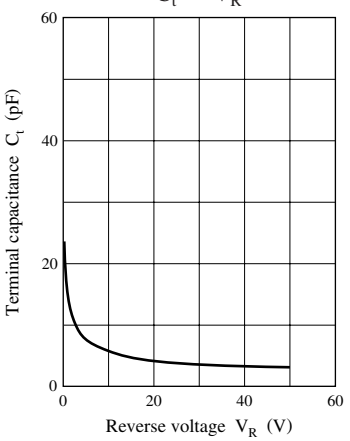

$V_F$ — $T_a$



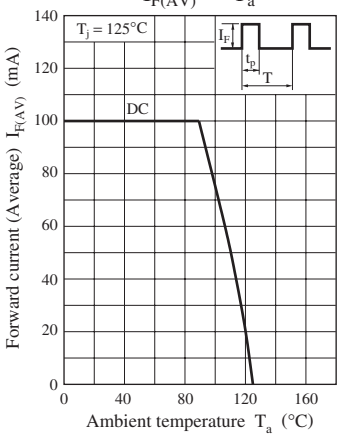

$I_R$ — $T_a$




$C_t$ — $V_R$

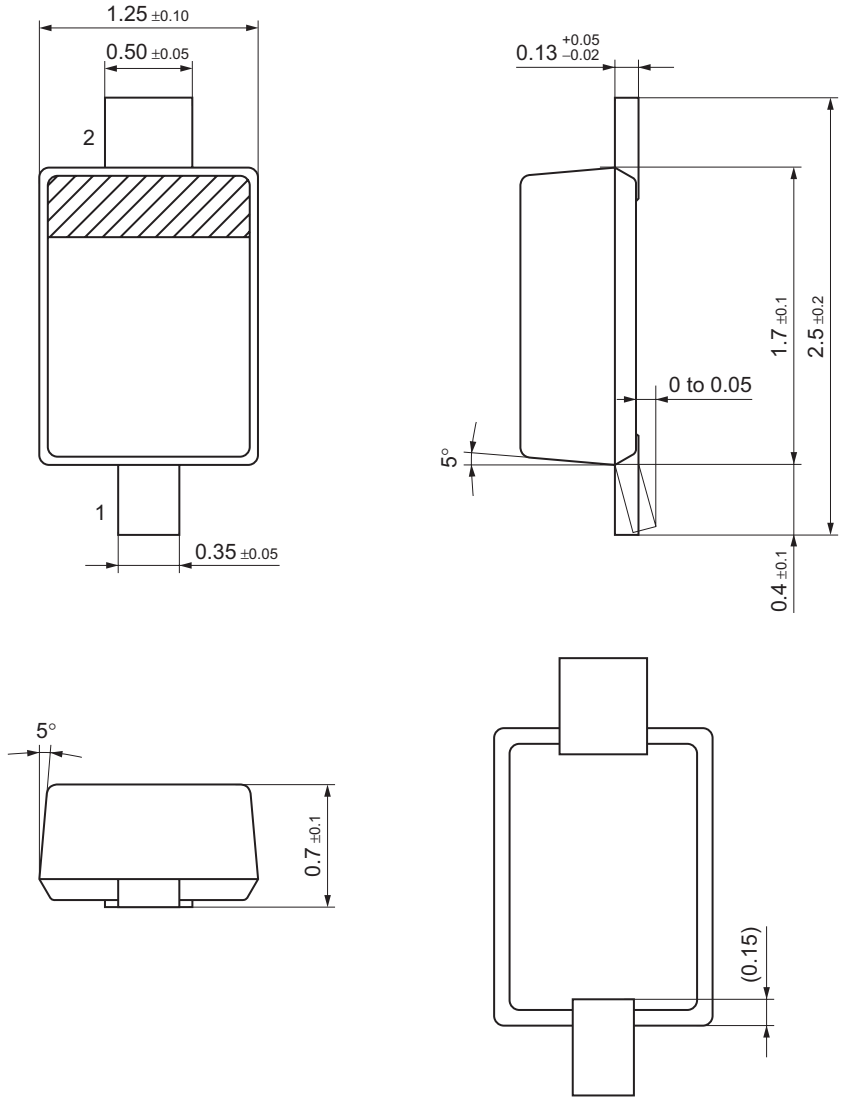



$I_{F(AV)}$ — $T_a$



# SMini2-F3

Unit: mm



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