

MA6Z121 (MA6S121)

Silicon epitaxial planar type

For switching circuit

■ Features

- Small S-mini type 6-pin package
- Three isolated elements contained in one package, allowing high-density mounting
- Flat lead type, resulting in improved mounting efficiency and solderability with the high-speed mounting machine
- Short reverse recovery time t_{rr}
- Small terminal capacitance, C_t

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|-------------|-------------|------------------|
| Reverse voltage (DC) | V_R | 80 | V |
| Peak reverse voltage | V_{RM} | 80 | V |
| Average forward current*1 | $I_{F(AV)}$ | 100 | mA |
| Peak forward current*1 | I_{FM} | 225 | mA |
| Non-repetitive peak forward surge current*1,2 | I_{FSM} | 500 | mA |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *1 : Value for single diode

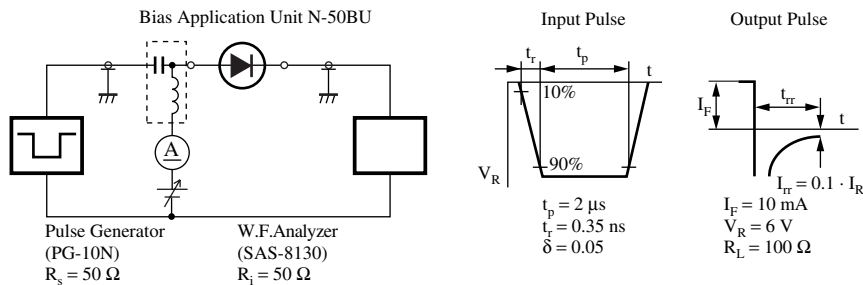
*2 : $t = 1 \text{ s}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

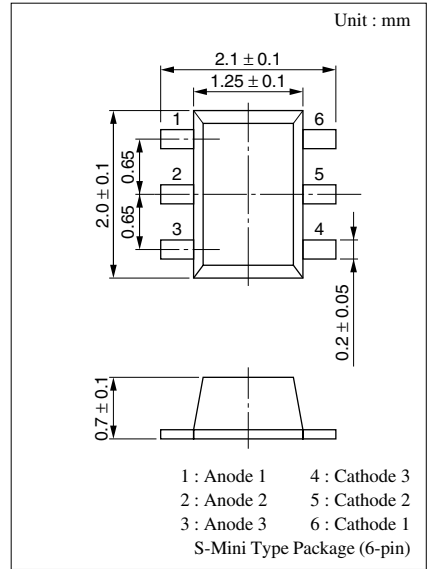
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|------------------------|----------|--|-----|-----|-----|---------------|
| Reverse current (DC) | I_R | $V_R = 75 \text{ V}$ | | | 0.1 | μA |
| Forward voltage (DC) | V_F | $I_F = 100 \text{ mA}$ | | | 1.2 | V |
| Reverse voltage (DC) | V_R | $I_R = 100 \mu\text{A}$ | 80 | | | V |
| Terminal capacitance | C_t | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ | | | 2 | pF |
| Reverse recovery time* | t_{rr} | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ $I_{tr} = 0.1 \cdot I_R, R_L = 100 \Omega$ | | | 3 | ns |

Note) 1. Rated input/output frequency: 100 MHz

2. * : t_{rr} measuring circuit

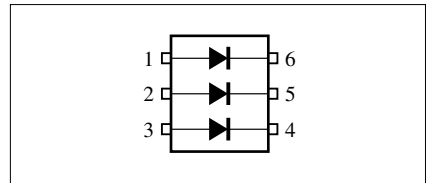


Note) The part number in the parenthesis shows conventional part number.

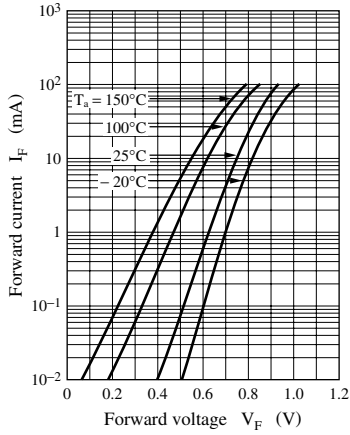


Marking Symbol: M2D

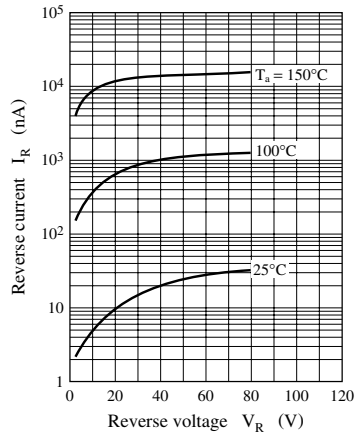
Internal Connection



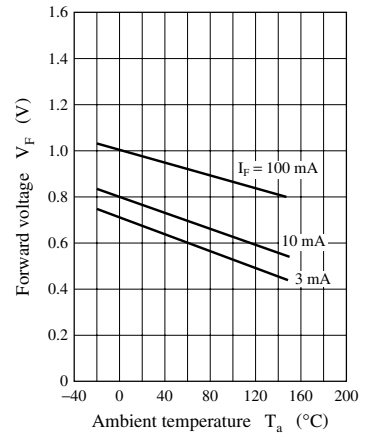
$I_F - V_F$



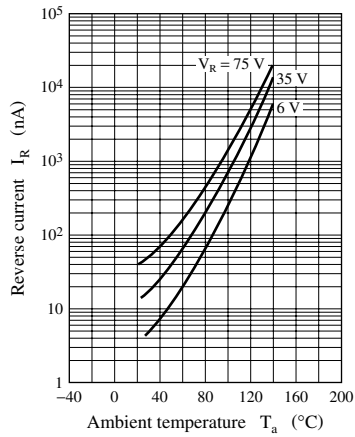
$I_R - V_R$



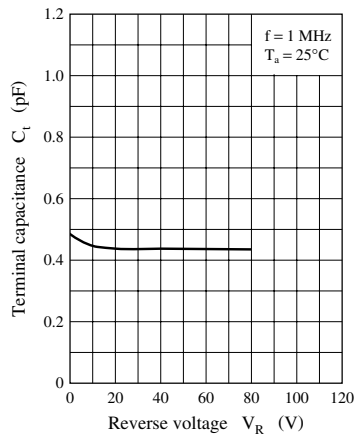
$V_F - T_a$



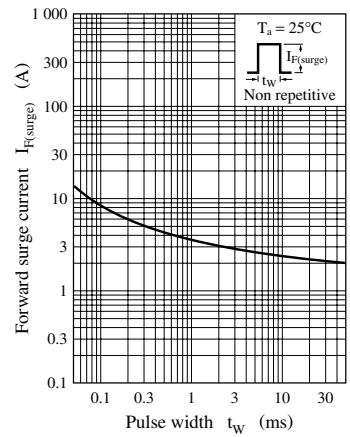
$I_R - T_a$



$C_t - V_R$



$I_{F(\text{surge})} - t_w$



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