

MA3J142A (MA142A), MA3J142K (MA142K)

Silicon epitaxial planar type

For switching circuits

■ Features

- Allowing high-density mounting
- 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 | V_R | 80 | V |
| Maximum peak reverse voltage | V_{RM} | 80 | V |
| Forward current | I_F | 100 | mA |
| Peak forward current | I_{FM} | 225 | mA |
| Non-repetitive peak forward surge current * | I_{FSM} | 500 | mA |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *: $t = 1 \text{ s}$

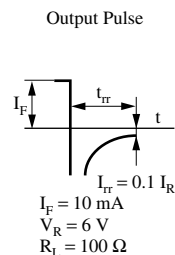
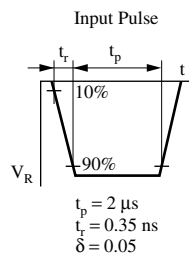
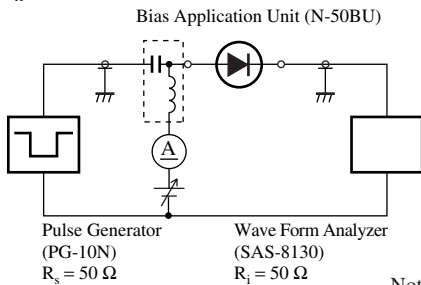
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|-------------------------|----------|--|-----|-----|-----|------|
| Forward voltage | V_F | $I_F = 100 \text{ mA}$ | | | 1.2 | V |
| Reverse voltage | V_R | $I_R = 100 \mu\text{A}$ | 80 | | | V |
| Reverse current | I_R | $V_R = 75 \text{ V}$ | | | 100 | nA |
| Terminal capacitance | MA3J142A | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ | | | 15 | pF |
| | MA3J142K | | | | 2 | |
| Reverse recovery time * | MA3J142A | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ $I_{rr} = 0.1 I_R, R_L = 100 \Omega$ | | | 10 | ns |
| | MA3J142K | | | | 3 | |

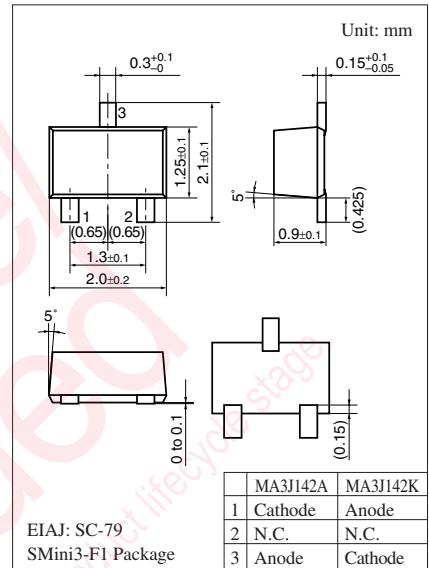
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Absolute frequency of input and output is 100 MHz.

3. *: t_{rr} measurement circuit



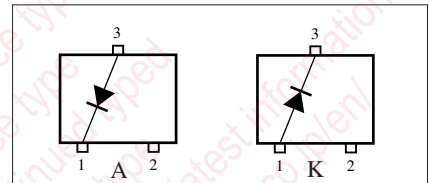
Note) The part numbers in the parenthesis show conventional part number.



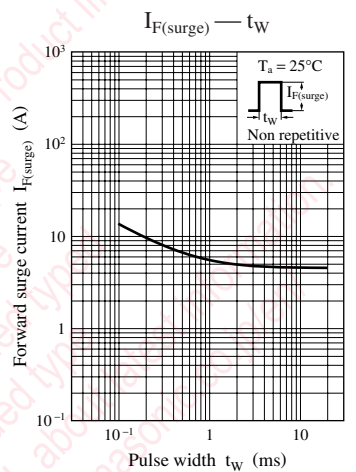
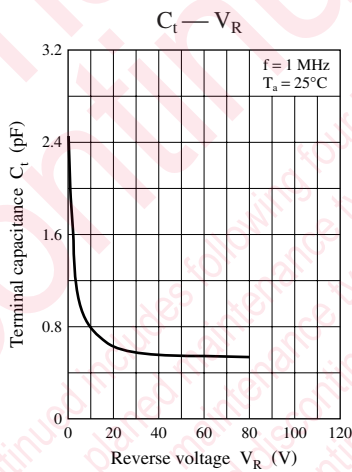
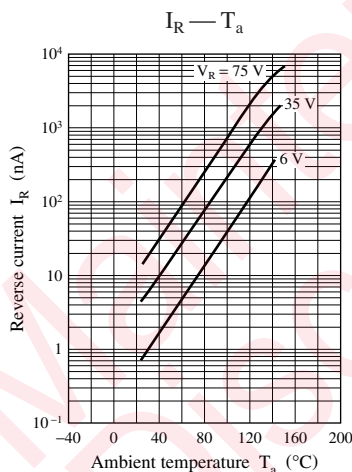
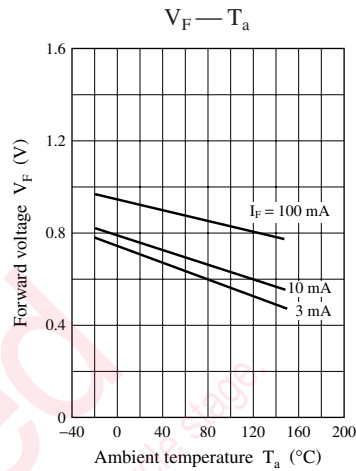
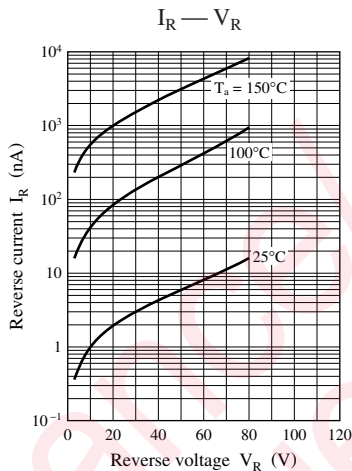
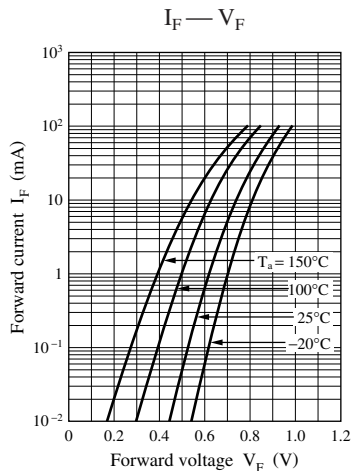
Marking Symbol:

- MA3J142A: MB
- MA3J142K: MI

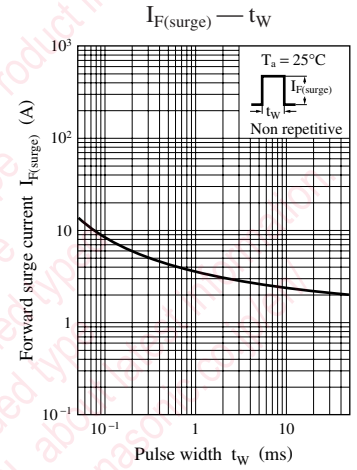
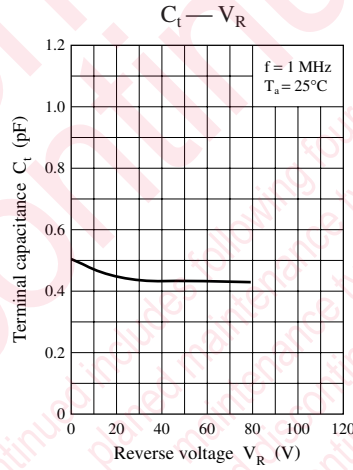
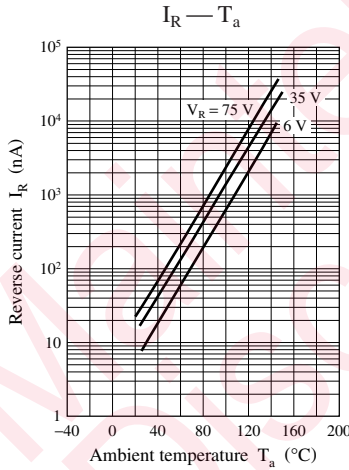
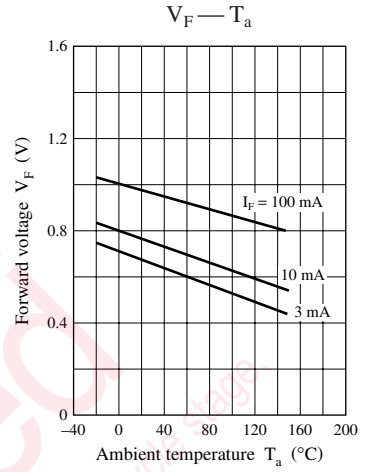
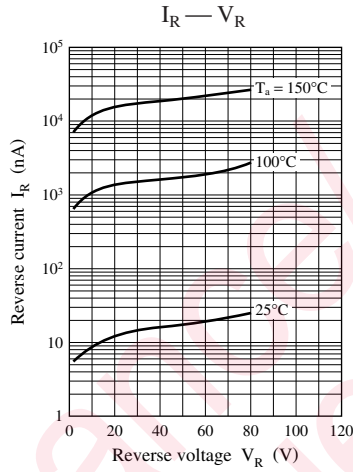
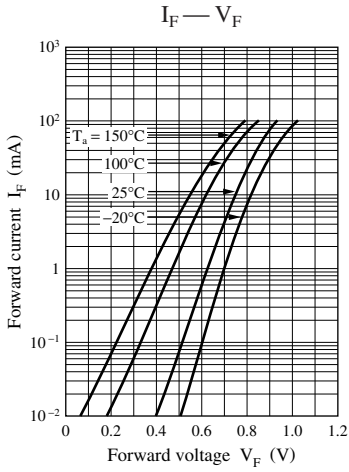
Internal Connection



Characteristics charts of MA3J142A



Characteristics charts of MA3J142K



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