

## **GMA01, 01U**

# Epitaxial Planar Silicon Diode Very High-Speed Switching, **Bias Stabilizing Applications**

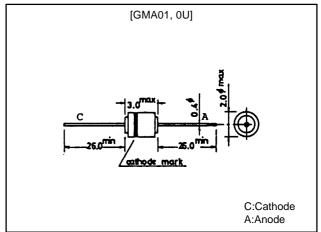
#### **Features**

- · Glass sleeve structure.
- · Allowable power dissipation : P=300mW max.
- · Interterminal capacitance : c=3.0pF max.
- · Reverse recovery time :  $t_{rr}$ =4.0ns max.
- · Small size, being about half of DO-35 package heretofore in use.

## **Package Dimensions**

unit:mm

1114



## **Specifications**

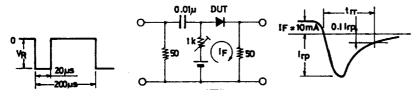
### Absolute Maximum Ratings at Ta = 25°C

| Parameter                   | Symbol           | Conditions | GMA01         | GMA01U      | Unit |
|-----------------------------|------------------|------------|---------------|-------------|------|
| Peak Reverse Voltage        | V <sub>RM</sub>  |            | 60            | 105         | V    |
| Reverse Voltage             | V <sub>R</sub>   |            | 55            | 100         | V    |
| Peak Forward Current        | I <sub>FM</sub>  |            | $\rightarrow$ | 360         | mA   |
| Average Rectified Current   | Io               |            | $\rightarrow$ | 120         | mA   |
| Surge Forward Current       | I <sub>FSM</sub> | 1 s pulse  | $\rightarrow$ | 500         | mA   |
| Allowable Power Dissipation | Р                |            | $\rightarrow$ | 300         | mW   |
| Junction Temperature        | Tj               |            | $\rightarrow$ | 175         | °C   |
| Storage Temperature         | Tstg             |            | $\rightarrow$ | -65 to +175 | °C   |

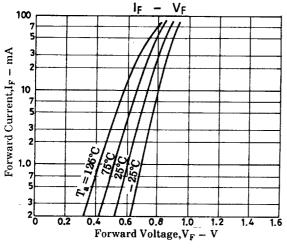
#### Electrical Characteristics at Ta = 25°C

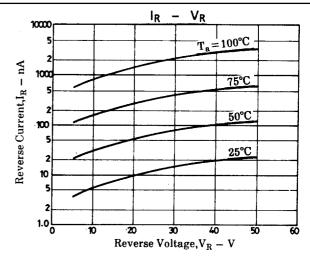
| Parameter                 | Symbol          | Conditions                             | Ratings |     |      | Unit |
|---------------------------|-----------------|--|---------|-----|------|------|
|                           |                 |  | min     | typ | max  |      |
| Forward Voltage           | ٧F              | I <sub>F</sub> =1.5mA                  | 0.55    |     | 0.68 | V    |
| Reverse Current           | I <sub>R</sub>  | V <sub>R</sub> =55 (GMA01)             |         |     | 0.5  | μΑ   |
|                           |                 | V <sub>R</sub> =75 (GMA01U)            |         |     | 0.5  | μΑ   |
|                           |                 | V <sub>R</sub> =100V (GMA01U)          |         |     | 5    | μA   |
| Interterminal Capacitance | С               | V <sub>R</sub> =0, f=1MHz              |         |     | 3.0  | pF   |
| Reverse Recovery TIme     | t <sub>rr</sub> | $V_R=6V$ , $I_F=10$ mA, $R_L=50\Omega$ |         |     | 4.0  | ns   |

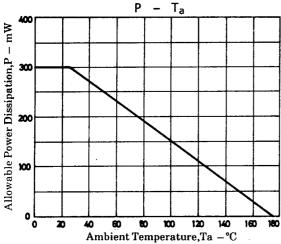
## **Reverse Recovery Time Test Circuit**



Unit (resistance :  $\Omega$ , capacitance : F)







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