

# AG01Y

**PRV : 70 Volts**  
**Io : 1.0 Ampere**

## FEATURES :

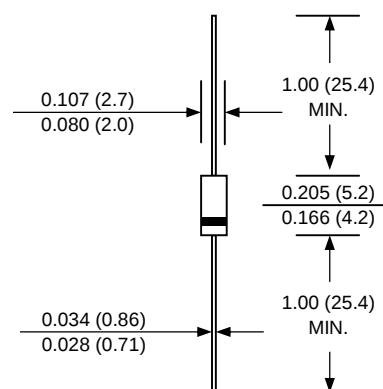
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.339 gram

## ULTRA FAST RECOVERY RECTIFIER DIODE

**DO - 41**



**Dimensions in inches and ( millimeters )**

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| RATING                                                                              | SYMBOL             | VALUE         | UNIT |
|-------------------------------------------------------------------------------------|--------------------|---------------|------|
| Maximum Peak Reverse Voltage                                                        | V <sub>RM</sub>    | 70            | V    |
| Maximum Peak Reverse Surge Voltage                                                  | V <sub>RSM</sub>   | 70            | V    |
| Maximum Average Rectified Forward Current                                           | I <sub>F(AV)</sub> | 1.0           | A    |
| Maximum Peak Forward Surge Current<br>( 50 Hz, Half-cycle, Sine wave, Single Shot ) | I <sub>FSM</sub>   | 25            | A    |
| Maximum Forward Voltage at I <sub>F</sub> = 1.0 A                                   | V <sub>F</sub>     | 1.2           | V    |
| Maximum Reverse Current at V <sub>R</sub> = V <sub>RM</sub> , Ta = 25°C             | I <sub>R</sub>     | 0.1           | mA   |
| Maximum Reverse Current at V <sub>R</sub> = V <sub>RM</sub> , Ta = 100°C            | I <sub>R(H)</sub>  | 0.5           | mA   |
| Maximum Reverse Recovery Time ( Note 1 )                                            | T <sub>rr</sub>    | 100           | ns   |
| Junction Temperature Range                                                          | T <sub>J</sub>     | - 40 to + 150 | °C   |
| Storage Temperature Range                                                           | T <sub>STG</sub>   | - 40 to + 150 | °C   |

### Note:

( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 100 mA, I<sub>RP</sub> = 100 mA.

## RATING AND CHARACTERISTIC CURVES ( AG01Y )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

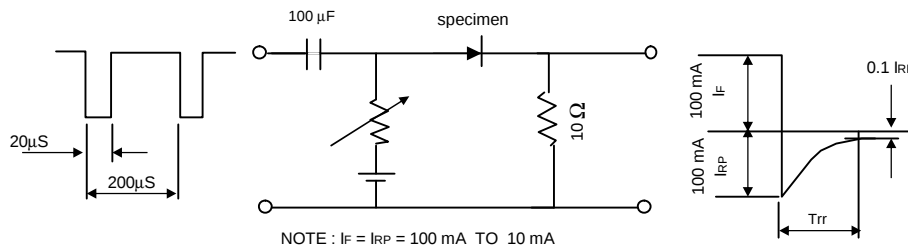


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

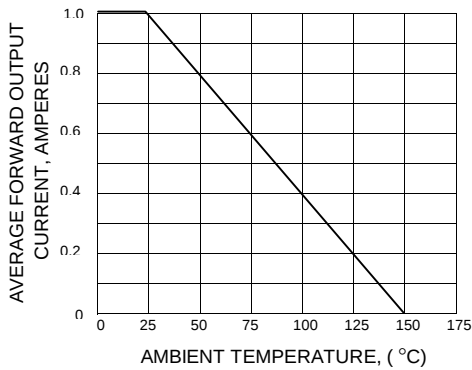


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

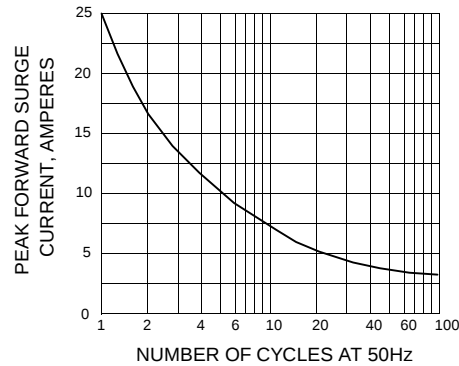


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

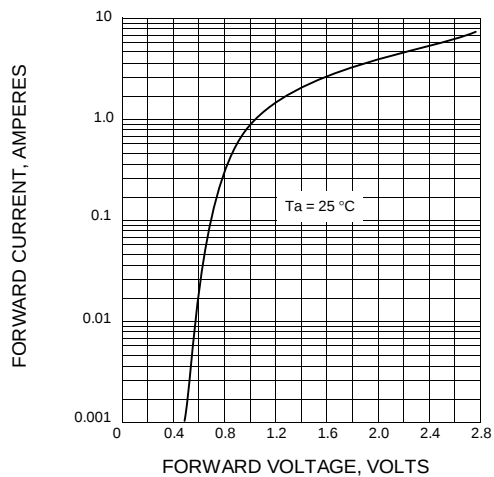


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

