

# EG1Y

**PRV : 70 Volts**  
**Io : 1.1 Ampere**

## FEATURES :

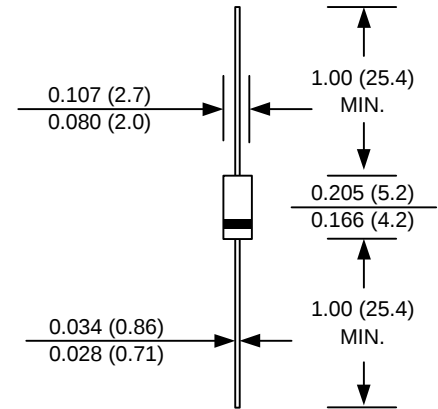
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

## 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                                                        | $V_{RM}$    | 70            | V                |
| Maximum Peak Reverse Surge Voltage                                                  | $V_{RSM}$   | 70            | V                |
| Maximum Average Rectified Forward Current                                           | $I_{F(AV)}$ | 1.1           | A                |
| Maximum Peak Forward Surge Current<br>( 50 Hz, Half-cycle, Sine wave, Single Shot ) | $I_{FSM}$   | 30            | A                |
| Maximum Forward Voltage at $I_F = 1.1$ A                                            | $V_F$       | 1.2           | V                |
| Maximum Reverse Current at $V_R = V_{RM}$ , $T_a = 25^\circ\text{C}$                | $I_R$       | 0.1           | mA               |
| Maximum Reverse Current at $V_R = V_{RM}$ , $T_a = 100^\circ\text{C}$               | $I_{R(H)}$  | 0.5           | mA               |
| Maximum Reverse Recovery Time ( Note 1 )                                            | $T_{rr}$    | 100           | ns               |
| Junction Temperature Range                                                          | $T_J$       | - 40 to + 150 | $^\circ\text{C}$ |
| Storage Temperature Range                                                           | $T_{STG}$   | - 40 to + 150 | $^\circ\text{C}$ |

### Note:

( 1 ) Reverse Recovery Test Conditions :  $I_F = 100$  mA,  $I_{RP} = 100$  mA.

## RATING AND CHARACTERISTIC CURVES ( EG1Y )

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

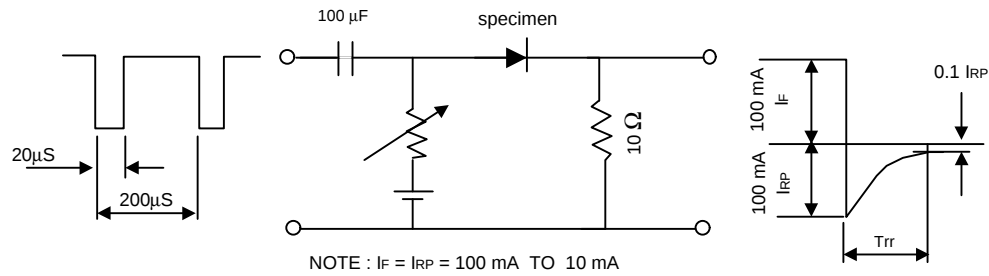


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

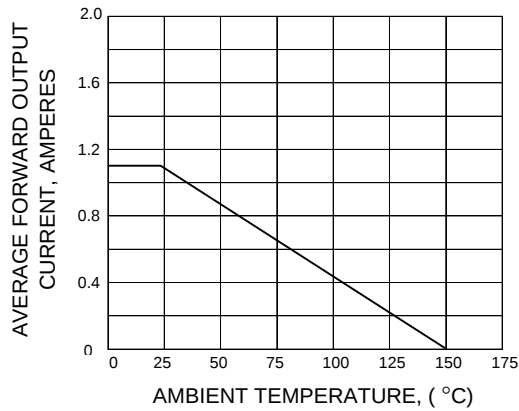


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

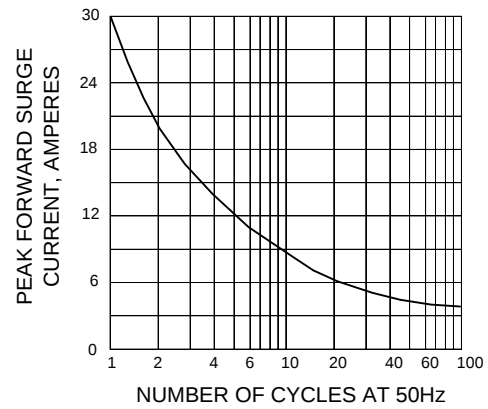


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

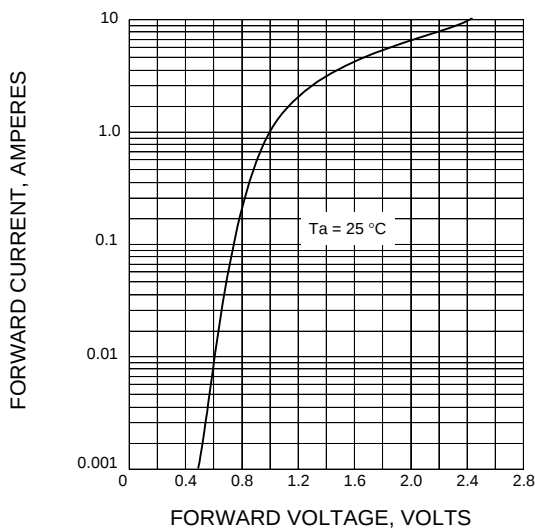


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

