

# 1N5806S

**PRV : 150 Volts**  
**Io : 2.5 Amperes**

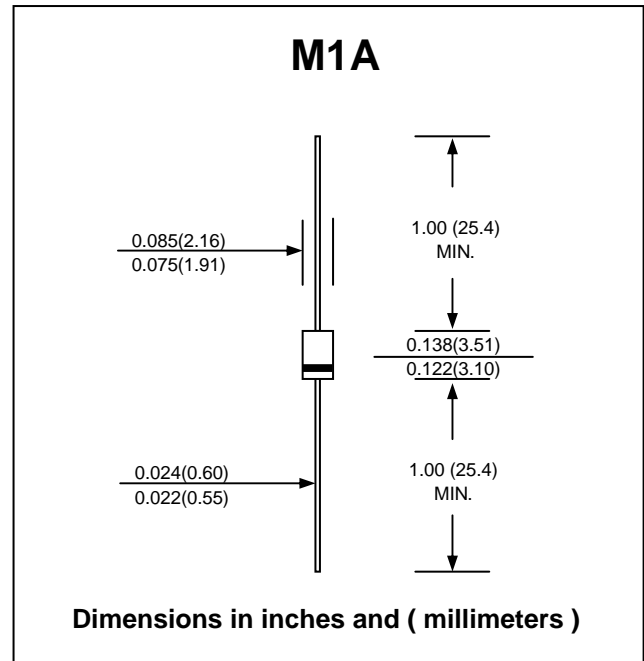
## FEATURES :

- \* Glass passivated junction chip
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ultrafast recovery time
- \* **Pb Free / RoHS Compliant**

## MECHANICAL DATA :

- \* Case : M1A 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 : 0.20 gram (approximately)

## GLASS PASSIVATED JUNCTION ULTRA FAST RECTIFIER



## 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 Working Peak Reverse Voltage	$V_{RWM}$	150	V
Minimum Breakdown Voltage @ 100 $\mu$ A	$V_{BR(Min)}$	160	V
Maximum Average Forward Current	$I_{F(AV)}$	2.5 ( $T_L = 75^\circ\text{C}$ , Note 1)	A
		1.0 ( $T_a = 55^\circ\text{C}$ )	
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	35	A
Maximum Peak Forward Voltage at $I_F = 1.0$ A.	$V_F$	0.875	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	1.0	$\mu$ A
	$I_{R(H)}$	50 ( $T_a = 100^\circ\text{C}$ )	
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	25	ns
Junction Temperature Range	$T_J$	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175	$^\circ\text{C}$

### Notes :

(1)  $I_{F(AV)} = 2.5\text{A}$  @  $T_L = 75^\circ\text{C}$  at 3/8 inc lead length. Derate at 25mA/ $^\circ\text{C}$  for  $T_L$  above 75 $^\circ\text{C}$ .

(2) Reverse Recovery Test Conditions :  $I_F = 0.5$  A,  $I_R = 1.0$  A,  $I_{rr} = 0.25$  A.