

# BY396 THRU BY399

## FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE: 100-800V

CURRENT: 3.0A

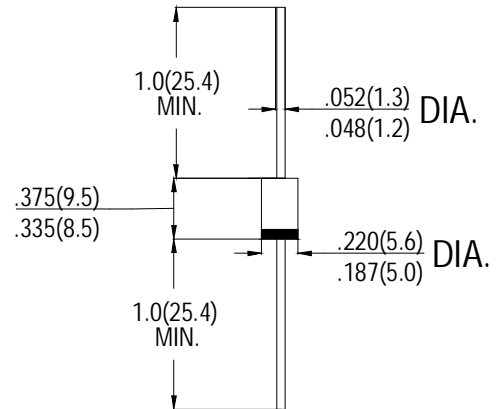
### FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 1.18 grams

### DO-27



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	BY396	BY397	BY398	BY399	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	200	400	800	V
Maximum RMS Voltage	$V_{RMS}$	70	140	280	560	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	800	V
Maximum Average Forward rectified Current at $T_A=75^\circ\text{C}$	$I_o$	3.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	125				A
Maximum Instantaneous forward Voltage at 3.0A DC	$V_F$	1.3				V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	$I_R$	10.0				$\mu\text{A}$
Maximum Full Load Reverse Current Full Cycle Average, .375"(9.5mm) lead length at $T_L=55^\circ\text{C}$		100				
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	150			500	nS
Typical Junction Capacitance (Note 2)	$C_J$	40				pF

Notes: 1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ 

2. Measured at 1MHz and applied reverse voltage of 4.0 volts