



# BY296 THRU BY299S

## FAST RECOVERY SILICON RECTIFIER

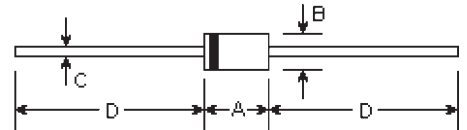
Reverse Voltage - 100 to 1000 Volts

Forward Current - 2.0 Amperes

### Features

- Fast recovery diodes
- Diffused junction
- High current capability
- The plastic material carries U/L recognition 94V-0
- Terminals: Axial leads
- Polarity: Color band denotes cathode

### DO-201AD



### Mounting Instruction

- Min. distance from body to soldering point, 4mm
- Max. solder temperature, 350°C
- Max. soldering time: 3.5 Sec.
- Do not bend lead at a point closer than 3mm to the body

| DIMENSIONS |        |       |       |      |      |
|------------|--------|-------|-------|------|------|
| DIM        | inches |       | mm    |      | Note |
|            | Min.   | Max.  | Min.  | Max. |      |
| A          | 0.283  | 0.374 | 7.20  | 9.50 |      |
| B          | 0.189  | 0.208 | 4.80  | 5.30 | ϕ    |
| C          | 0.048  | 0.051 | 1.20  | 1.30 | ϕ    |
| D          | 1.000  | -     | 25.40 | -    |      |

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

|                                                       | Symbols         | BY296       | BY297 | BY298 | BY299 | BY299S | Units |
|-------------------------------------------------------|-----------------|-------------|-------|-------|-------|--------|-------|
| Peak repetitive and non recurrent reverse voltage     | $V_{RRM}$       | 100         | 200   | 400   | 800   | 1000   | Volts |
| Forward current, R load at $T_{amb}=50^{\circ}C$      | $I_{(AV)}$      | 2.0         |       |       |       |        | Amps  |
| 8.3mS peak forward surge current at $T_j=25^{\circ}C$ | $I_{FSM}$       | 70.0        |       |       |       |        | Amps  |
| Recurrent peak forward current (A)                    | $I_{FRM}$       | 10.0        |       |       |       |        | Amps  |
| Maximum forward voltage drop at $I_F=2.0A$            | $V_F$           | 1.3         |       |       |       |        | Volts |
| Maximum reverse current at $V_{RRM}$ at 25°C          | $I_R$           | 10.0        |       |       |       |        | μA    |
| Maximum reverse recovery time (Note 1)                | $T_{rr}$        | 250         |       |       |       |        | nS    |
| Maximum thermal resistance (l=10mm)                   | $R_{\theta JA}$ | 30.0        |       |       |       |        | °C/W  |
| Operating and storage temperature range               | $T_J, T_{STG}$  | -65 to +125 |       |       |       |        | °C    |

Note:

(1) Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$

## RATINGS AND CHARACTERISTIC CURVES

