

# COMPUTER DIODE

## Switching

1N4152, 1N4305, 1N4444

### ABSOLUTE MAXIMUM RATINGS, at 25°C

|                                   | 1N4152            | 1N4305 | 1N4444 |
|-----------------------------------|-------------------|--------|--------|
| Peak Reverse Voltage .....        | 40V               | 75V    | 70V    |
| Reverse Working Voltage .....     | 30V               | 50V    | 50V    |
| Average Rectified Current .....   | 200mA             |        |        |
| Surge Current, 8.3 ms .....       | 500mA             |        |        |
| Operating Temperature Range ..... | - 65°C to + 150°C |        |        |
| Storage Temperature Range .....   | - 65°C to + 200°C |        |        |

### FEATURES

- Metallurgical Bond
- Planar Passivated
- DO-35 Package

### DESCRIPTION

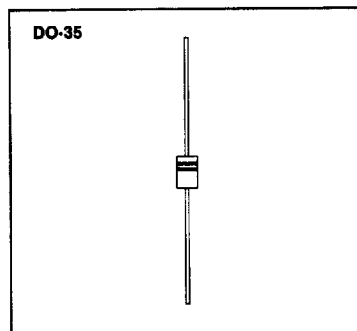
This series offers Metallurgical Bonding and is very popular for general purpose switching applications.

### ELECTRICAL SPECIFICATIONS (at 25°C unless noted)

| Type   | Peak Inverse Voltage (V) | Forward Voltage @ 0.1mA |      | Forward Voltage @ 0.25mA |       | Forward Voltage @ 1.0mA |      | Forward Voltage @ 2.0mA |      | Forward Voltage @ 10mA |      | Forward Voltage @ 20mA |      | Forward Voltage @ 100mA |     |
|--------|--------------------------|-------------------------|------|--------------------------|-------|-------------------------|------|-------------------------|------|------------------------|------|------------------------|------|-------------------------|-----|
|        |                          | min                     | max  | min                      | max   | min                     | max  | min                     | max  | min                    | max  | min                    | max  | min                     | max |
| 1N4152 | 40                       | 0.49                    | 0.55 | 0.53                     | 0.59  | 0.59                    | 0.67 | 0.62                    | 0.70 | 0.70                   | 0.81 | 0.74                   | 0.88 | —                       | —   |
| 1N4305 | 75                       | —                       | —    | 0.505                    | 0.575 | 0.55                    | 0.65 | 0.61                    | 0.71 | 0.70                   | 0.85 | —                      | —    | —                       | —   |
| 1N4444 | 70                       | 0.44                    | 0.55 | —                        | —     | 0.50                    | 0.60 | —                       | —    | 0.69                   | 0.82 | —                      | —    | 0.85                    | 1.0 |

| Type   | Reverse Current |      | Reverse Current @ 150°C |         | Junction Capacitance @ 0V | Reverse Recovery Time $t_{rr}$ |
|--------|-----------------|------|-------------------------|---------|---------------------------|--------------------------------|
|        | $V_R$           | (nA) | $V_R$                   | $\mu A$ |                           |                                |
| 1N4152 | 30              | 50   | 30                      | 50      | 2pF                       | 2nS                            |
| 1N4305 | 50              | 100  | 50                      | 100     | 2pF                       | 2nS                            |
| 1N4444 | 50              | 50   | 50                      | 50      | 2pF                       | 7nS                            |

### MECHANICAL SPECIFICATIONS



**Microsemi Corp.**  
**Watertown**  
 The diode experts