



High-reliability discrete products  
and engineering services since 1977

# ZR01D

## Inverted Series Suppressor Network

### FEATURES:

- Designed for use as relay suppression circuit applications.
- Plastic ZR01D package.
- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

### MAXIMUM RATINGS

| Ratings   | Symbol           | Value             | Unit  |
|---|------------------|-------------------|-------|
| Zener diode power dissipation                                     | P <sub>D</sub>   | 1.5               | Watts |
| Rectifier maximum average forward current @ T <sub>A</sub> = 75°C | I <sub>AV</sub>  | 1.0               | Amps  |
| Rectifier maximum peak reverse voltage                            | V <sub>RWM</sub> | 600               | Volts |
| Storage temperature range   | T <sub>stg</sub> | 70 to +175        | °C    |
| Operating temperature range                                       | T <sub>J</sub>   | 70 to +150        | °C    |
| Solder temperature  | T <sub>SP</sub>  | 260 maximum 10sec | °C    |

### ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted

| Parameters  | Symbol          | Min | Max | Unit  |
|---|-----------------|-----|-----|-------|
| Zener voltage<br>I <sub>ZT</sub> = 1.5mA, T <sub>p</sub> = 10ms                         | V <sub>Z</sub>  | 33  | 39  | Volts |
| Zener voltage<br>I <sub>ZT</sub> = 1.5mA, T <sub>p</sub> = 10ms, T <sub>A</sub> = 125°C | V <sub>Z</sub>  | 36  | 43  | Volts |
| Zener voltage<br>I <sub>ZT</sub> = 1.5mA, T <sub>p</sub> = 10ms, T <sub>A</sub> = -55°C | V <sub>Z</sub>  | 30  | 38  | Volts |
| Maximum zener reverse current<br>V <sub>R</sub> = 24V                                   | I <sub>R</sub>  | 0.1 |     | µA    |
| Minimum diode breakdown voltage<br>I <sub>R</sub> = 20µA                                | V <sub>BR</sub> | 600 |     | Volts |
| Maximum diode reverse current<br>V <sub>R</sub> = 480V                                  | I <sub>R</sub>  | 1   |     | µA    |



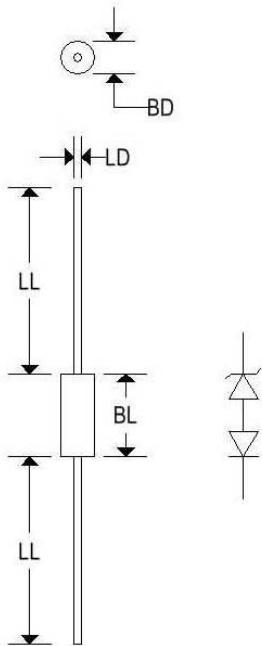
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### MECHANICAL CHARACTERISTICS

|          |                             |
|----------|-----------------------------|
| Case     | ZR01D plastic package       |
| Marking  | Body painted, alpha-numeric |
| Polarity | Cathode band                |



|    | ZR01D  |       |             |       |
|----|--------|-------|-------------|-------|
|    | Inches |       | Millimeters |       |
|    | Min    | Max   | Min         | Max   |
| BD | -      | 0.110 | -           | 2.794 |
| BL | -      | 0.205 | -           | 5.207 |
| LD | 0.027  | 0.033 | 0.686       | 0.838 |
| LL | 1.000  | -     | 25.400      | -     |