# Metal Film Resistors, Zero Ohm Jumper, Industrial

## FEATURES

- Provides low resistance circuit interconnections
- Color band marking for ease of identification after mounting
- Flame retardant coating
- Compatible with automatic insertion equipment
- Tape and reel packaging
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* COMPLIANT

**Note**

* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

## STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | MAXIMUM RESISTANCE VALUE mΩ | MAXIMUM CURRENT A AT + 25 °C | AT + 150 °C |
|---|---|---|---|---|
| FRJ50 | FRJ-50 | 10 | 25 | 0 |

**Note**

- DSCC has created a drawing to support the need for an axial-leaded zero-ohm jumper product. Vishay Dale is listed as a resource on this drawing as follows:

| DSCC DRAWING NUMBER | VISHAY DALE MODEL | MAXIMUM RESISTANCE mΩ | MAXIMUM CURRENT RATING A |
|---|---|---|---|
| A-A-55502 | FRJ50 | 10 | 5 |

This drawing can be viewed at: http://www.landandmaritime.dla.mil/Programs/MilSpec/ListDwgs.aspx?DocTYPE=DSCCdwg

## TECHNICAL SPECIFICATIONS

| PARAMETER | | UNIT | FRJ50 |
|---|---|---|---|
| Insulation Resistance - Dry | | MΩ | 10 000 |
| Insulation Resistance - Wet | | MΩ | 100 |
| Category Temperature Range | | °C | - 55/+ 155 |
| Dielectric Strength | - Atmospheric<br>- Reduced | $V_{RMS}$<br>$V_{RMS}$ | 500<br>325 |
| Failure Rate | | $10^{-9}$/h | < 10 |
| Weight | | g | 0.1 |

## MATERIAL SPECIFICATIONS

| | | | |
|---|---|---|---|
| **Insulation Flammability** | Self extinguishing 10 s after flame is removed | **Solder plated copper** | Tin-plated copper or tin/lead plated copper |

## GLOBAL PART NUMBER INFORMATION

**New Global Part Numbering: FRJ50R36 (preferred part numbering format)**

| F | R | J | 5 | 0 | R | 3 | 6 | | | |
|---|---|---|---|---|---|---|---|---|---|---|

| GLOBAL MODEL | PACKAGING | SPECIAL |
|---|---|---|
| **FRJ50** | **E36** = Lead (Pb)-free, T/R (5000 pieces)<br>**R36** = Tin/Lead, T/R (5000 pieces) | Blank = Standard (Dash Number) (up to 3 digits) From **1 - 999** as applicable |

**Historical Part Number example: FRJ-50 R36 (will continue to be accepted)**

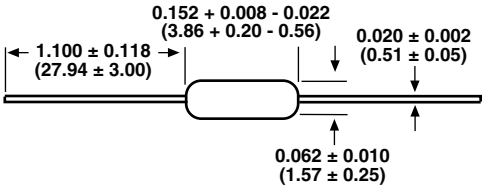
| FRJ-50 | R36 |
|---|---|
| HISTORICAL MODEL | PACKAGING |

**Note**

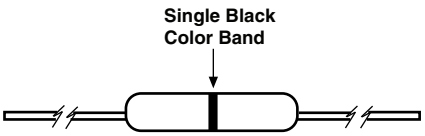
- For additional information on packaging, refer to the Through-Hole Resistor Packaging document (www.vishay.com/doc?31544).

**DIMENSIONS** in inches (millimeters)

### FRJ50




## MARKING




## PACKAGING

Taped Lead and Reel Package

(52.4 mm inside tape spacing per EIA-296-E)

**Notes**

- Quantity per reel: 5000 pieces in 5000-piece increments
- A minimum of 12.0" (305 mm) bare tape leader shall be provided at each end of the reel
- Paper separator protection between layers of components
- Reel arbor hole is 1.25" (31.75 mm)

# Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.