

# WRF3JB47R0 Datasheet



|                              |  |
|------------------------------|--|
| DiGi Electronics Part Number | WRF3JB47R0-DG  |
| Manufacturer                 | <a href="#">Stackpole Electronics Inc</a>  |
| Manufacturer Product Number  | WRF3JB47R0   |
| Description                  | RES 47 OHM 5% 3W AXIAL   |
| Detailed Description         | 47 Ohms ±5% 3W Through Hole Resistor Axial Flame Proof, Moisture Resistant, Safety Wirewound |

<https://www.DiGi-Electronics.com>

This model WRF3JB47R0 is available at DiGi Electronics.

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## Purchase and inquiry

Manufacturer Product Number:

WRF3JB47R0

Series:

WRF

Resistance:

47 Ohms

Power (Watts):

3W

Features:

Flame Proof, Moisture Resistant, Safety

Operating Temperature:

-55°C ~ 225°C

Supplier Device Package:

Axial

Height - Seated (Max):

-

Failure Rate:

-

Manufacturer:

Stackpole Electronics Inc

Product Status:

Obsolete

Tolerance:

±5%

Composition:

Wirewound

Temperature Coefficient:

-80/ +900ppm/°C

Package / Case:

Axial

Size / Dimension:

0.197" Dia x 0.630" L (5.00mm x 16.00mm)

Number of Terminations:

2

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8533.21.0080

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

# WRF Series

## Conformal Coated Wirewound Resistor

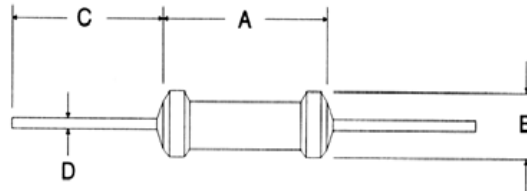
Stackpole Electronics, Inc.  
Resistive Product Solutions

- Features:
- Conformal coating
  - Flameproof construction
  - Cut and formed product is available on select sizes  
Contact factory for details
  - RoHS compliant / lead-free



### Electrical Specifications

| Type / Code | Power Rating (Watts) @ 25°C | Maximum Working Voltage | Dielectric Withstanding Voltage (RMS) | Resistance Temperature Coefficient | Ohmic Range (Ω) and Tolerance |
|-------------|-----------------------------|-------------------------|---------------------------------------|------------------------------------|-------------------------------|
|             |                             |                         |                                       |                                    | 5%                            |
| WRF1        | 1W                          | √PR                     | 700V                                  | -80ppm/°C ~ +900ppm/°C             | 0.1 - 33                      |
| WRF2        | 2W                          | √PR                     | 700V                                  | -80ppm/°C ~ +900ppm/°C             | 0.1 - 220                     |
| WRF3        | 3W                          | √PR                     | 700V                                  | -80ppm/°C ~ +900ppm/°C             | 0.1 - 220                     |



### Mechanical Specifications

| Type / Code | A<br>Body Length | B<br>Body Width | C<br>Lead Length (Bulk)(1) | D<br>Lead Diameter | Unit   |
|-------------|------------------|-----------------|----------------------------|--------------------|--------|
| WRF1        | 0.433 max        | 0.197 max       | 1.102 ± 0.118              | 0.031 ± 0.002      | inches |
|             | 11.00 max        | 5.00 max        | 28.00 ± 3.00               | 0.78 ± 0.05        | mm     |
| WRF2        | 0.630 max        | 0.197 max       | 1.102 ± 0.118              | 0.031 ± 0.002      | inches |
|             | 16.00 max        | 5.00 max        | 28.00 ± 3.00               | 0.78 ± 0.05        | mm     |
| WRF3        | 0.630 max        | 0.197 max       | 1.102 ± 0.118              | 0.031 ± 0.002      | inches |
|             | 16.00 max        | 5.00 max        | 28.00 ± 3.00               | 0.78 ± 0.05        | mm     |

(1) See "Resistor Packaging Specification Document" for lead length dimension for tape and reel packaged product.

### Performance Characteristics

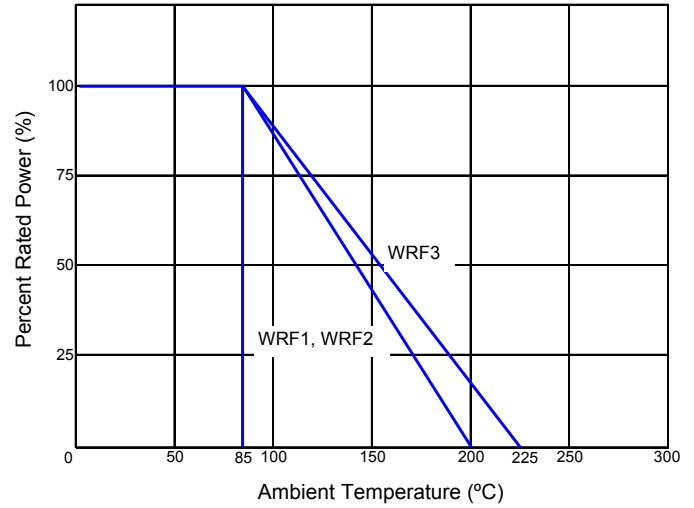
| Test                                | Test Results                  |
|-------------------------------------|-------------------------------|
| Rated Ambient Temperature           | 85°C                          |
| Overload 15 Times the Rated Wattage | Open circuit within 2 minutes |
| Short Time Overload                 | ± 3% + 0.05Ω                  |
| Effective Soldering                 | ± 2% + 0.05Ω                  |
| Insulation Resistance               | >10 <sup>4</sup> MΩ           |
| Dielectric Withstanding Volt        | ± 2% + 0.05Ω                  |
| Load Life @ 70°C - 1,000 hrs.       | ± 5% + 0.05Ω                  |
| Moisture Resistance                 | ± 5% + 0.05Ω                  |
| Shock and Vibration                 | ± 1% + 0.05Ω                  |
| Solderability                       | 90% tin covered min.          |
| Temperature Coefficient             | -80ppm/°C ~ +900ppm/°C        |

Operating Temperature Range: -55°C to +200°C (WRF 1, 2)  
-55°C to +225°C (WRF 3)

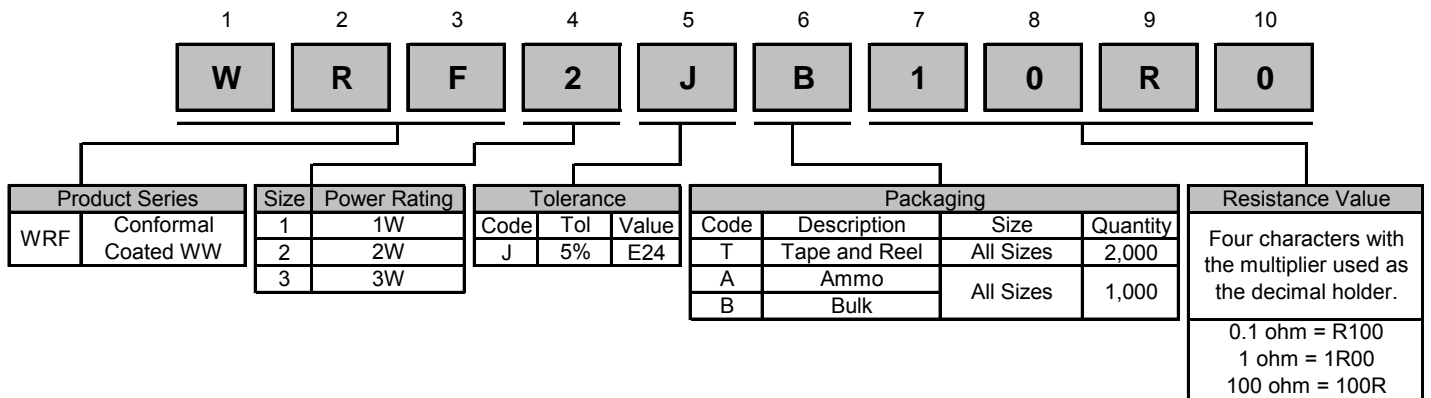
**WRF Series**  
Conformal Coated Wirewound Resistor

**Stackpole Electronics, Inc.**  
Resistive Product Solutions

Power Derating Curve:



**How to Order**



Legacy Part Number (before January 3, 2011):

| SEI Type   |                     | Code     | Nominal Resistance | Tolerance | Packaging |        |      |         |               |      |
|------------|---------------------|----------|--------------------|-----------|-----------|--------|------|---------|---------------|------|
| <b>WRF</b> |                     | <b>2</b> | <b>10R</b>         | <b>5%</b> | <b>A</b>  |        |      |         |               |      |
| Type       | Description         | Code     |                    |           | Tol       | Values | Type | Pkg Qty | Description   | Code |
| WRF        | Conformal Coated WW | 1        |                    |           | 5%        | E24    | All  | 1,000   | Bulk          | A    |
|            |                     | 2        |                    |           |           |        | All  | 2,000   | Tape and Reel | R    |
|            |                     | 3        |                    |           |           |        | All  | 1,000   | Ammo          | T    |

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