BOURNS®

Riedon™ FWP218, FWP220/221, FWP227x and FWU Series Foil Resistors by Bourns



NEW PRODUCT BRIEF

INTRODUCTION

Bourns has released four new foil resistor product series designed to provide highly accurate and rugged performance. The FWP218, FWP220/221, FWP227x and FWU Series feature low TCR, low noise, and excellent reliability. Designers can select from a variety of package options and electrical characteristics, and Bourns also offers custom solutions upon request.

The variety of choices available makes these latest foil resistors optimal measurement and control solutions for a broad range of applications that include current sense, industrial, consumer, telecommunication, Battery Management Systems (BMS), DC-DC converters and motor drive designs. Metal foil resistors are increasingly aligned with current market requirements for precision, high power and reliability in advanced electronic systems.

These metal foil resistors are constructed with a metal foil resistive element mounted on a ceramic substrate for excellent heat conductivity. Their construction enables ultralow Temperature Coefficient of Resistance (TCR) and long-term stability. These products are designed specifically for applications that require both high accuracy and high power. More and more designers of high-end systems are turning to metal foil resistors to help ensure long-term accuracy and system reliability.

FEATURES

- · Very high power
- Very low resistance
- **Excellent heat conductivity**
- Low TCR
- Variety of package options
- RoHS compliant*

BENEFITS

- · High accuracy for current sensing
- Low TCR for stable performance over temperature
- · Long-term stability
- Very low resistance values available
- · High power dissipation in compact packages
- Customization to match application-specific requirements

APPLICATIONS

- · Current sense
- Industrial
- Consumer
- Telecommunications
- **Battery Management Systems**
- DC-DC converters
- · Motor drives

FLECTRICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS						
Series	Photo	Package	Power Rating (W)	Resistance Range (Ω)	Temperature Coefficient of Resistance (TCR)	Tolerance (%)
FWP218		TO-247	Heat Sink: 30 W	0.002 to 20	±30 to ±300 ppm/°C	±0.25, ±0.5, ±1, ±2, ±5
FWP220/221		TO-220 TO-221	Heat Sink: 15 W	0.002 to 10	±25 to ±50 ppm/°C	±0.1, ±0.25, ±0.5, ±1, ±2, ±5
FWP227x	200	TO-227	Heat Sink: 80 W	0.001 to 100	±25, ±50 ppm/°C	±0.1, ±1, ±2, ±5
FWU		TO-220 TO-221 D²PAK	Heat Sink: 15W	0.2 to 150	±1 to ±5 ppm/°C	±0.01, ±0.02, ±0.05, ±0.1, ±0.25, ±0.5, ±1

For full characteristics, see data sheets

COPYRIGHT© 2025 • BOURNS, INC. • 11/25 • e/N2597 "Bourns" is a registered trademark of Bourns, Inc. in the U.S. and other countries. In April 2023, BE Services Company, Inc., a subsidiary of Bourns, Inc., purchased certain assets of Riedon, Inc., including its logo and trademarks and the right to continue to manufacture former Riedon™ products. "Riedon Logo" is a registered trademark of BE Services Company, Inc. in the United States. "Riedon" is a trademark of BE Services Company, Inc.

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.











