

High-Voltage, High-Value Thin Film Precision Resistor Series



KEY BENEFITS

- HVPS2 voltage rating up to 1800 V
- Tight tolerances to $\pm 0.01\%$
- Resistance range 50 k Ω to 10 M Ω
- Low TCR to ± 5 ppm/ $^{\circ}$ C
- Thin film stability 500 ppm at 70 $^{\circ}$ C for 2000 h
- Low Noise <- 30 dB

APPLICATIONS

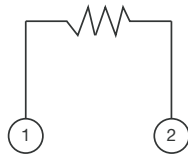
- Instrumentation amplifiers
- Precision voltage dividers
- Measurement systems
- Test range selection

RESOURCES

- Datasheet: HVPS Series - <http://www.vishay.com/doc?60091>
- For technical questions contact thinfilm@vishay.com



High-Voltage, High-Value Thin Film Precision Resistor Series


SCHEMATIC

FEATURES

- High nominal precision resistors (value range 50K to 10M)
- Highly accurate resistance tolerance (up to $\pm 0.01\%$)
- Conformal coating flame resistant (UL 94 V-0) rating
- Ultra low TCR (± 5 ppm/ $^{\circ}$ C)
- High voltage
- Flame resistant (UL 94 V-0 rating)
- HVPS2 voltage rating up to 1800 V
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


 Available
RoHS*
 Available

HALOGEN
FREE
Note

* This datasheet provides information about parts that are RoHS-compliant and/or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information/tables in this datasheet for details.

APPLICATIONS

- Precise instrumentation (medical, test etc.)
- Precision amplifiers

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	2	-
Resistance Range	50 000 Ω to 5000 k Ω (HVPS1) 100 000 Ω to 10 000 k Ω (HVPS2)	-
TCR: Absolute	5 ppm/ $^{\circ}$ C to 25 ppm/ $^{\circ}$ C	-55 $^{\circ}$ C to +125 $^{\circ}$ C
TCR: Tracking	-	-
Tolerance: Absolute	$\pm 0.01\%$ to $\pm 1.0\%$	Maximum at +70 $^{\circ}$ C
Tolerance: Ratio	-	-
Power Rating: Resistor	125 mW (HVPS1) 400 mW (HVPS2)	-
Power Rating: Package	-	-
Stability: Absolute	$\Delta R \pm 0.05\%$	2000 h at +70 $^{\circ}$ C
Stability: Ratio	-	-
Voltage Coefficient	< 1.0 ppm/V	-
Working Voltage	250 V (HVPS1) up to 1800 V (HVPS2) ⁽¹⁾	-
Operating Temperature Range	-55 $^{\circ}$ C to +125 $^{\circ}$ C	-
Storage Temperature Range	-	-
Noise	< -30 dB	-
Thermal EMF	< 0.1 μ V/ $^{\circ}$ C	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01\%$	1 year at +25 $^{\circ}$ C
Shelf Life Stability: Ratio	-	-

Note
⁽¹⁾ See chart

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