

High Pulse Wirewound Resistor, Noise Suppressor



FEATURES

- High grade alumina ceramic core
- AEC-Q200 qualified
- High ignition pulse, 25 kV, withstanding resistive winding element
- Non-flammable silicone cement coating
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- EMI / RFI noise suppression in automotive ignition

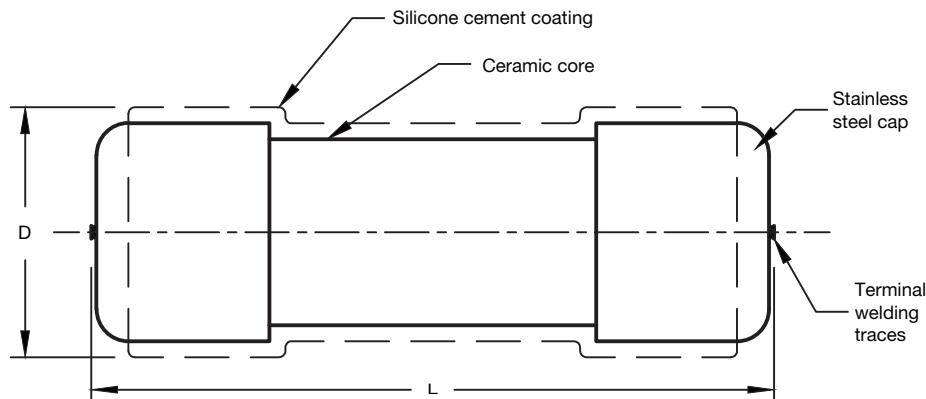
STANDARD ELECTRICAL SPECIFICATIONS			
TYPE	RATED DISSIPATION P_{40}	RESISTANCE RANGE	RESISTANCE TOLERANCE
HPR 1/2 (HPR0500)	0.50 W	1 k Ω to 5 k Ω	$\pm 10\%$, $\pm 20\%$
HPR 1 (HPR1000)	1 W	1 k Ω to 5 k Ω	$\pm 10\%$, $\pm 20\%$

Note

- Customer specific resistance values are available on request

TECHNICAL SPECIFICATIONS		
DESCRIPTION	HPR 1/2 (HPR0500)	HPR 1 (HPR1000)
Imperial size	0411	0519
Typical inductance	22 μ H at 1 MHz, 1 V	
Basic specifications	IEC 60115-1	
Climatic category	-55 ° C / +200 ° C / 56 days	
Termination	Stainless steel caps	
Lacquer coating	Non-flammable silicone cement meets IEC 60115-1, 4.26 active flammability test and IEC 60115-1, 4.35 passive flammability needle flame test	

DIMENSIONS



Notes

- Top surface of the product will be covered by silicone cement lacquer
- There will be no lacquer on the edges and on the side surface of the product



DIMENSIONS - HPR types, mass and relevant physical dimensions			
TYPE	Ø D _{MAX.} (mm)	Ø L _{MAX.} (mm)	MASS (mg)
HPR 1/2 (HPR0500)	3.9	11.0	360
HPR 1 (HPR1000)	5.2	18.7	993

PART NUMBER AND PRODUCT DESCRIPTION

Part Number: HPR0500005001KLX00

H	P	R	0	5	0	0	0	0	5	0	0	1	K	L	X	0	0
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MODEL HPR0500 HPR1000	VARIANT 0 = neutral	TCR / MATERIAL 0 = neutral	RESISTANCE 3 digit value 1 digit multiplier Multiplier 1 = *10 ¹	TOLERANCE K = ± 10 % M = ± 20 %	PACKAGING LX
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Product Description: HPR0500 5K 10% LX CD xxxx

HPR0500	5K	10 %	LX	CD xxxx
TYPE HPR1000	RESISTANCE 5K = 5 kΩ	TOLERANCE K = ± 10 % M = ± 20 %	PACKAGING	SPECIAL CODE

PACKAGING			
PRODUCT TYPE	CODE	QUANTITY	DESCRIPTION
HPR 1/2 (HPR0500)	LX	1000	Loose in box
HPR 1 (HPR1000)			



DESCRIPTION

Stainless steel caps (terminations) are firmly pressed onto a high grade alumina ceramic core. The resistor element is a resistive wire, which is wound on this ceramic core. Resistor is coated with silicone cement protective coating designed for electrical, mechanical and climatic protection.

MATERIALS

Vishay acknowledges the following systems for the regulation of hazardous substances:

- IEC 62474, Material Declaration for Products of and for the Electrotechnical Industry, with the list of declarable substances given therein (1)
• The Global Automotive Declarable Substance List (GADSL) (2)
• The REACH regulation (1907/2006/EC) and the related list of substances with very high concern (SVHC) (3) for its supply chain

The products do not contain any of the banned substances as per IEC 62474, GADSL, or the SVHC list, see www.vishay.com/how/leadfree.

Hence the products fully comply with the following directives:

- 2000/53/EC End-of-Life Vehicle Directive (ELV) and Annex II (ELV II)
• 2011/65/EU Restriction of the Use of Hazardous Substances Directive (RoHS) with amendment 2015/863/EU
• 2012/19/EU Waste Electrical and Electronic Equipment Directive (WEEE)

Vishay pursues the elimination of conflict minerals from its supply chain, see the Conflict Minerals Policy at www.vishay.com/doc?49037.

ASSEMBLY

The resistor is mounted inside noise suppressor spark plug cap. Connections are taken mechanically through a spring and through a screw electrode. The suitability of conformal coatings, if applied, shall be qualified by appropriate means to ensure the long-term stability of the whole system.

Notes

- (1) The IEC 62474 list of declarable substances is maintained in a dedicated database, which is available at http://std.iec.ch/iec62474
(2) The Global Automotive Declarable Substance List (GADSL) is maintained by the American Chemistry Council and available at www.gadsl.org
(3) The SVHC list is maintained by the European Chemical Agency (ECHA) and available at http://echa.europa.eu/candidate-list-table

Table with 5 columns: IEC 60115-1 CLAUSE, IEC 60068-2 TEST METHOD, TEST, PROCEDURE, REQUIREMENTS PERMISSIBLE CHANGE (ΔR). Rows include test conditions like short time overload, rapid change of temperature, climatic sequence (dry heat, damp heat, cold, low air pressure), damp heat (steady state), and endurance tests at room temperature and 200 °C.



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