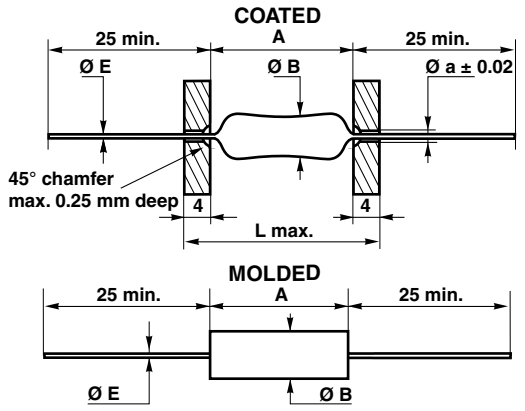
High Ohmic Value (up to 1.5 GΩ), High Power Resistors (up to 10 W at 25 °C) Thick Film

FEATURES

- High ohmic values up to 1.5 GΩ
- Power rating up to 10 W at +25 °C
- Molded or coated
- Ceramic core
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

DIMENSIONS in millimeters



SERIES AND STYLE	A	Ø B	Ø E ± 0.1	WEIGHT g	FINISH
HPS58	6.5 ± 0.2	2.4 ± 0.1	0.6	0.24	Molded
HPS63	10 ± 0.2	3.7 ± 0.1		0.29	
HPS68	15 ± 0.2	5.6 ± 0.3	0.8	0.67	
HPS523	23 ± 2.3	5 ± 0.3		1.23	Coated
HPS923	23 ± 2.5	9 ± 0.5		4.60	
HPS932	32 ± 2.5	9 ± 0.5		5.27	
HPS947	47 ± 2.5	9 ± 0.5		7.18	

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	RESISTANCE RANGE Ω	RATED POWER $P_{25\ °C}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE ± %	TEMPERATURE COEFFICIENT ± ppm/°C	CRITICAL RESISTANCE (Ω)	CLIMATIC CATEGORY
HPS58	200 to 100M	1	300	0.5, 1, 2, 5, 10	150	90K	-55 °C/ +200 °C/ 56 days
HPS63	200 to 175M	2	700	0.5, 1, 2, 5, 10	150	245K	
HPS68	300 to 400M	3	1500	0.5, 1, 2, 5, 10	150	750K	
HPS523	800 to 650M	4	2000	0.5, 1, 2, 5, 10	150	1M	
HPS923	1K to 1G	6	2500	0.5, 1, 2, 5, 10	150	1.041M	
HPS932	1K to 1G	8	5000	0.5, 1, 2, 5, 10	150	3.125M	
HPS947	2K to 1.5G	10	8000	0.5, 1, 2, 5, 10	150	6.4M	

MARKING

GEKA trade-mark, series, style, nominal resistance (in Ω), tolerance (in %), letter P for TCR ± 150 ppm/°C, manufacturing date. Because of lack of space, small styles are marked with ohmic value (in Ω), tolerance (in %) and letter P.

ORDERING INFORMATION

HPS	68	50 MΩ	10 %	150 ppm/°C	BL20	e1
MODEL	SIZE	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING	LEAD (Pb)-FREE

For technical questions, contact: sferfixedresistors@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

GLOBAL PART NUMBER INFORMATION

H	P	S	0	6	8	5	0	0	5	K	P	B	1	5

GLOBAL MODEL	STYLE	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING	SPECIAL
HPS	**HPS**: 58 to 947	The first three digits are significant figures and the last digit specifies the number of zeros to follow. R designates decimal point. **1006** = 100 MΩ **5104** = 5.1 MΩ **3303** = 330 kΩ **5005** = 50 MΩ ...	**D** = 0.5 % **F** = 1 % **G** = 2 % **J** = 5 % **K** = 10 %	**P** = 150 ppm **K** = 100 ppm	**B15** = blister (20 pieces) **B19** = blister (30 pieces) **A18** = ammopack (400 pieces) **A20** = ammopack (500 pieces) **B17** = blister (25 pieces) **R10** = reel (500 pieces) as applicable	As applicable

For technical questions, contact: sferfixedresistors@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

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.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

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.

© 2023 VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED