

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



FEATURES

- High ohmic values up to 1.5 G Ω
- 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

The diagram illustrates the physical dimensions of HPS resistors in two styles: COATED and MOLDED.

COATED Style: This style features a central resistive body with a diameter of $\varnothing B$ and a length of L (maximum). It is flanked by two leads, each with a diameter of $\varnothing E$ and a length of 25 mm. The leads are chamfered at a 45° angle with a maximum depth of 0.25 mm. The distance from the end of the lead to the start of the resistive body is 25 mm. The diameter of the lead at the junction is $\varnothing a \pm 0.02$. The thickness of the coating is 4 mm.

MOLDED Style: This style has a rectangular resistive body with a diameter of $\varnothing B$ and a length of A . It is flanked by two leads, each with a diameter of $\varnothing E$ and a length of 25 mm. The distance from the end of the lead to the start of the resistive body is 25 mm.

SERIES AND STYLE	A	$\varnothing B$	$\varnothing E \pm 0.1$	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		0.67	
HPS523	23 ± 2.3	5 ± 0.3	0.8	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 $P_{25\text{ }^{\circ}\text{C}}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE $\pm$ %	TEMPERATURE COEFFICIENT $\pm$ 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 $\pm$ 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 M Ω	10 %	150 ppm/°C	BL20	e1
MODEL	SIZE	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING	LEAD (Pb)-FREE



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 = ammpack (400 pieces) A20 = ammpack (500 pieces) B17 = blister (25 pieces) R10 = reel (500 pieces) as applicable			As applicable	



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