

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



### **FEATURES**

- High ohmic values up to 1.5  $G\Omega$
- Power rating up to 10 W at +25 °C



- · Molded or coated
- · Ceramic core
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

| DIMENSIONS in millimeters       |                        |               |               |           |             |        |  |
|---------------------------------|------------------------|---------------|---------------|-----------|-------------|--------|--|
| COATED A 25 min. A 25 min.      | SERIES<br>AND<br>STYLE | A             | ØВ            | Ø E ± 0.1 | WEIGHT<br>g | FINISH |  |
| Ø E Ø B Ø a ± 0.02              | HPS58                  | $6.5 \pm 0.2$ | 2.4 ± 0.1     | 0.6       | 0.24        | Molded |  |
|                                 | HPS63                  | 10 ± 0.2      | 3.7 ± 0.1     |           | 0.29        |        |  |
| 45° chamfer max. 0.25 mm deep 4 | HPS68                  | 15 ± 0.2      | $5.6 \pm 0.3$ |           | 0.67        |        |  |
| L max.                          | HPS523                 | 23 ± 2.3      | 5 ± 0.3       | 0.8       | 1.23        | Coated |  |
| MOLDED  25 min.                 | HPS923                 | 23 ± 2.5      | 9 ± 0.5       |           | 4.60        |        |  |
| <u> </u>                        | HPS932                 | 32 ± 2.5      | 9 ± 0.5       |           | 5.27        |        |  |
| ØE ØB                           | HPS947                 | 47 ± 2.5      | 9 ± 0.5       |           | 7.18        |        |  |

| STANDARD ELECTRICAL SPECIFICATIONS |                          |                                   |                                  |                  |  |                               |                      |  |
|------------------------------------|--------------------------|-----------------------------------|----------------------------------|------------------|--|-------------------------------|----------------------|--|
| MODEL                              | RESISTANCE<br>RANGE<br>Ω | RATED POWER  P <sub>25 °C</sub> W | LIMITING ELEMENT<br>VOLTAGE<br>V | TOLERANCE<br>± % | TEMPERATURE<br>COEFFICIENT<br>± ppm/°C | CRITICAL<br>RESISTANCE<br>(Ω) | CLIMATIC<br>CATEGORY |  |
| HPS58                              | 200 to 100M              | 1                                 | 300                              | 0.5, 1, 2, 5, 10 | 150                                    | 90K                           |                      |  |
| 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                          | -55 °C/              |  |
| HPS523                             | 800 to 650M              | 4                                 | 2000                             | 0.5, 1, 2, 5, 10 | 150                                    | 1M                            | +200 °C/             |  |
| HPS923                             | 1K to 1G                 | 6                                 | 2500                             | 0.5, 1, 2, 5, 10 | 150                                    | 1.041M                        | 56 days              |  |
| 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                          |                      |  |

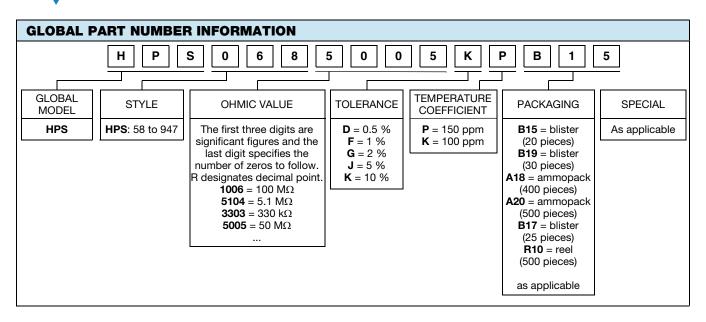
#### **MARKING**

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

| ORDERING INFORMATION |      |               |           |                         |           |                |  |  |
|----------------------|------|---------------|-----------|-------------------------|-----------|----------------|--|--|
| HPS                  | 68   | 50 <b>M</b> Ω | 10 %      | 150 ppm/°C              | BL20      | e1             |  |  |
| MODEL                | SIZE | OHMIC VALUE   | TOLERANCE | TEMPERATURE COEFFICIENT | PACKAGING | LEAD (Pb)-FREE |  |  |



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