

High Ohmic Values (up to 100 GΩ), High Voltage Resistors (up to 50 kV) Thick Film Technology


FEATURES

- RoHS for most values, please consult us
- Core: High purity ceramic
- Coating: Epoxy
- Termination: Standard lead material is solder coated copper
- Climatic category: - 55 °C/+ 155 °C/56 days
- High ohmic values: Up to 100 GΩ
- High voltage application: Up to 50 kV
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

| DIMENSIONS in millimeters | | | | | |
|---------------------------|---------------|-----------|------------|------------------|--------------------|
| | SERIES | A | Ø B | Ø E ± 0.1 | WEIGHT IN g |
| | 58 | 7 ± 0.2 | 1.6 ± 0.2 | 0.6 | 0.24 |
| | 63 | 8.5 ± 0.5 | 2.2 ± 0.2 | | 0.29 |
| | 68 | 14 ± 1 | 3.5 ± 0.3 | | 0.67 |
| | 523 | 23 ± 2 | 4.5 ± 0.3 | 0.8 | 1.23 |
| | 547 | 47 ± 2 | 4.5 ± 0.3 | | 4.60 |
| | 729 | 29 ± 2 | 6.5 ± 0.5 | | 5.27 |
| | 747 | 47 ± 2 | 4.5 ± 0.5 | | 7.18 |
| | 923 | 23 ± 2 | 8.5 ± 0.5 | | |
| | 932 | 32 ± 2 | | | |
| | 947 | 47 ± 2 | | | |
| | 972 | 72 ± 2 | | | |
| | 9100 | 100 ± 2 | | | |

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | |
|------------------------------------|-----------------------|--|-------------------------------|------------------|-------------------------------------|----------------------------|
| MODEL | RESISTANCE RANGE Ω | RATED POWER $P_{70^{\circ}\text{C}}$ W | LIMITING ELEMENT VOLTAGE V | TOLERANCE ± % | TEMPERATURE COEFFICIENT ± ppm/°C | CRITICAL RESISTANCE (Ω) |
| HTS58 | 200 to 200M | 0.25 | 500 | 0.5, 1, 2, 5, 10 | 150 | 1M |
| HTS63 | 1K to 500M | 0.5 | 1K | 0.5, 1, 2, 5, 10 | 150 | 2M |
| HTS68 | 1K to 2.5G | 1 | 2K | 0.5, 1, 2, 5, 10 | 150 | 4M |
| HTS523 | 1K to 5G | 1 | 5K | 0.5, 1, 2, 5, 10 | 150 | 25M |
| HTS547 | 1K to 50G | 1.5 | 15K | 0.5, 1, 2, 5, 10 | 150 | 150M |
| HTS729 | 1K to 15G | 2 | 10K | 0.5, 1, 2, 5, 10 | 150 | 50M |
| HTS747 | 1K to 30G | 2.5 | 15K | 0.5, 1, 2, 5, 10 | 150 | 90M |
| HTS923 | 1K to 15G | 2 | 8K | 0.5, 1, 2, 5, 10 | 150 | 32M |
| HTS932 | 1K to 30G | 2.5 | 15K | 0.5, 1, 2, 5, 10 | 150 | 90M |
| HTS947 | 1K to 50G | 3 | 20K | 0.5, 1, 2, 5, 10 | 150 | 133.3M |
| HTS972 | 1K to 100G | 4 | 30K | 0.5, 1, 2, 5, 10 | 150 | 225M |
| HTS9100 | 1K to 100G | 5 | 50K | 0.5, 1, 2, 5, 10 | 150 | 500M |

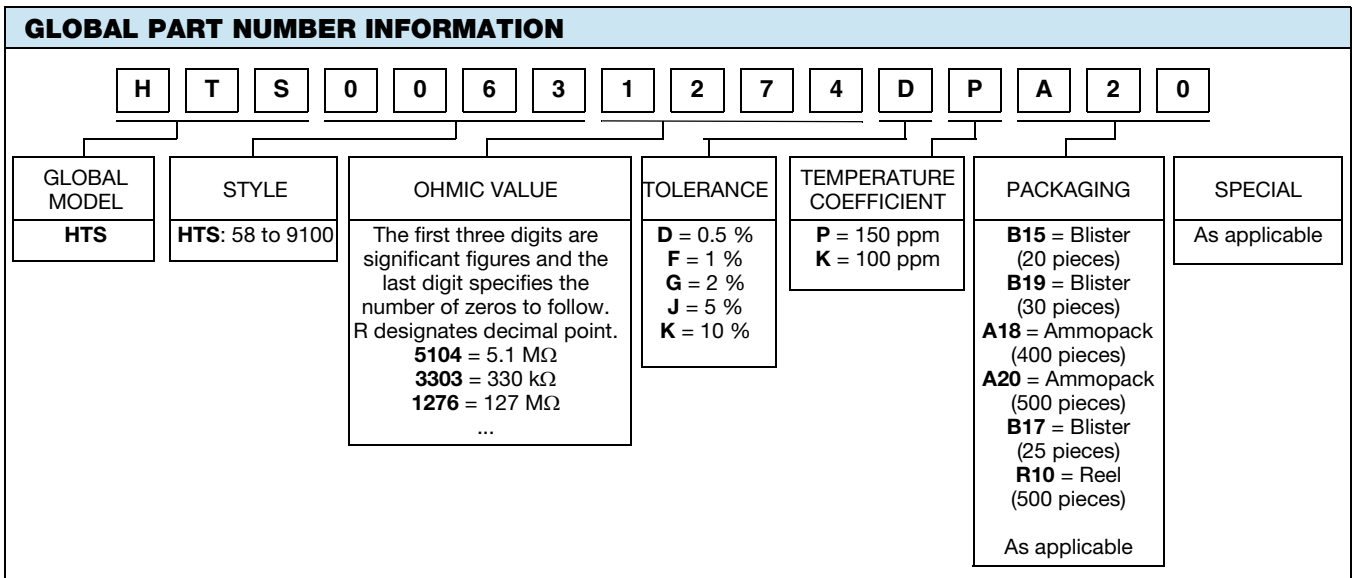


| TECHNICAL SPECIFICATIONS | | | | | | | | | | | | |
|--|---------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| SERIES AND STYLES | HTS 58 | HTS 63 | HTS 68 | HTS 523 | HTS 547 | HTS 729 | HTS 747 | HTS 923 | HTS 932 | HTS 947 | HTS 972 | HTS 9100 |
| Power Rating at + 70 °C | 0.25 W | 0.5 W | 1 W | 1 W | 1.5 W | 2 W | 2.5 W | 2 W | 2.5 W | 3 W | 4 W | 5 W |
| Ohmic Range in Relation to • Temperature Coefficient ± 150 ppm/°C • Tolerance | ± 0.5 % | 200 Ω 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ | 1 kΩ 100 MΩ |
| | ± 1 % | | 1 kΩ 250 MΩ | 1 kΩ 500 MΩ | 1 kΩ 500 MΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ | 1 kΩ 1 GΩ |
| | ± 2 % | 1 kΩ 200 MΩ | 1 kΩ 500 MΩ | 1 kΩ 2.5 GΩ | 1 kΩ 5 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ | 1 kΩ 10 GΩ |
| | ± 5 % | | | | | 1 kΩ 50 GΩ | 1 kΩ 15 GΩ | 1 kΩ 30 GΩ | 1 kΩ 15 GΩ | 1 kΩ 30 GΩ | 1 kΩ 50 GΩ | 1 kΩ 100 GΩ |
| | ± 10 % | | | | | | | | | | | 1 kΩ 100 GΩ |
| Limiting Element Voltage | 0.5 kV | 1 kV | 2 kV | 5 kV | 15 kV | 10 kV | 15 kV | 8 kV | 15 kV | 20 kV | 30 kV | 50 kV |
| Critical Resistance | 1 MΩ | 2 MΩ | 4 MΩ | 25 MΩ | 150 MΩ | 50 MΩ | 90 MΩ | 32 MΩ | 90 MΩ | 133.3 MΩ | 225 MΩ | 500 MΩ |

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 | | | | | | | |
|---------------------------|------|-------------|-----------|-------------------------|-----------|----------------|--|
| HTS | 63 | 1M27 | 0.5 % | 150 ppm/°C | AM500 | e1 | |
| MODEL | SIZE | OHMIC VALUE | TOLERANCE | TEMPERATURE COEFFICIENT | PACKAGING | LEAD (Pb)-FREE | |
| P: Standard: ± 150 ppm/°C | | | | | | | |





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