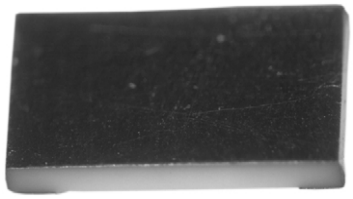
# High Temperature (230 °C) Zero Ohm Jumper SMD Thin Film Chip Resistor (Strap)



## LINKS TO ADDITIONAL RESOURCES

3D Models

More and more, customers use SMD straps (0 Ω) to able or disable a function on their PCB. Vishay Sfernice offers straps in a wide range of standard dimensions: From 02016 to 2512. For applications requiring high temperature withstanding (up to 230 °C).

## FEATURES

- Zero Ohm jumper
- SMD wraparound
- Sizes available: 02016 to 2512
- Thin film technology
- Terminations: gold or tin / silver
- Resistance value < 30 mΩ
- Maximum current through resistor: 0.5 A to 6.3 A
- Temperature range: -55 °C to +230 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS COMPLIANT

HALOGEN FREE Available

GREEN (5-2008) Available

## STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | SIZE | RESISTANCE RANGE Ω | RATED POWER W AT 215°C | MAXIMUM CURRENT A AT 215°C |
|---|---|---|---|---|
| PZHT02016 | 02016 | 0 (max. 0.02) | 0.002 | 0.28 |
| PZHT0402 | 0402 | 0 (max. 0.02) | 0.004 | 0.4 |
| PZHT0603 | 0603 | 0 (max. 0.02) | 0.008 | 0.56 |
| PZHT0805 | 0805 | 0 (max. 0.02) | 0.015 | 0.77 |
| PZHT1206 | 1206 | 0 (max. 0.025) | 0.025 | 1 |
| PZHT2010 | 2010 | 0 (max. 0.025) | 0.08 | 1.78 |
| PZHT2512 | 2512 | 0 (max. 0.025) | 0.1 | 2 |

## CLIMATIC SPECIFICATIONS

| | |
|---|---|
| Operating temperature range | -55 °C; +215 °C |
| Storage temperature range | -55 °C; +230 °C |

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Substrate | Alumina |
| Technology | Thin film |
| Film | Au or SnAg over nickel barrier |
| Terminations (1) | **G type:** Au for HMP (high melting point) reflow process over nickel barrier<br>**P type:** Au one face<br>**N type:** SnAg for solder reflow over nickel barrier<br>**F type:** SnAg one face |

**Note**

(1) SnAg for temperatures up to 200 °C - Au for temperatures up to 230 °C



For technical questions, contact: sferthinfilm@vishay.com

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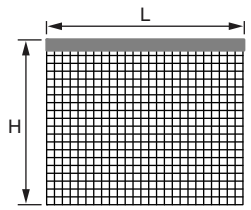
## DIMENSIONS in millimeters

**One Face Termination**
**PZHT02016 to PZHT2512**

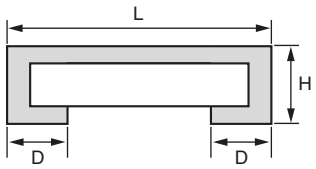
**Side View**



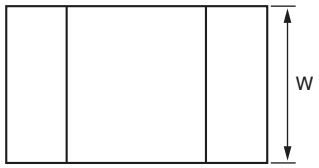

**Active Face View**

**Wraparound Terminations**
**PZHT0402 to PZHT2512**

**Side View**

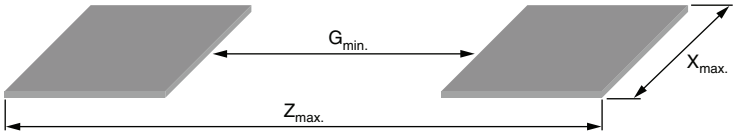



**Bottom View**



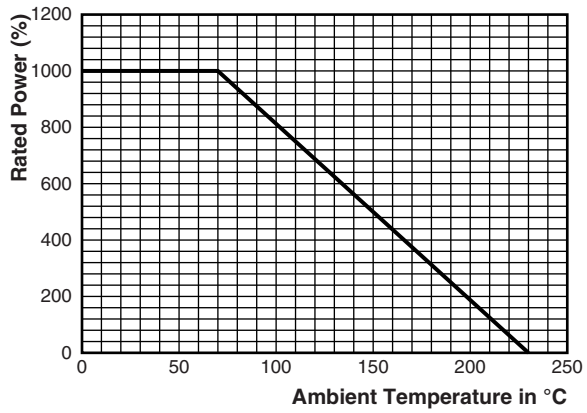

| TERMINATIONS | One face | Wraparound | One face | Wraparound | One face | Wraparound | One face | Wraparound |
|---|---|---|---|---|---|---|---|---|
| MODEL | L | | W | | H | | D | |
| PZHT02016 | 0.48 (± 0.1) | n/a | 0.39 (± 0.1) | n/a | 0.42 ± 0.07 | | n/a | |
| PZHT0402 | 1 ± 0.152 | | 0.6 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.25 ± 0.1 |
| PZHT0603 | 1.52 ± 0.152 | | 0.85 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.38 ± 0.13 |
| PZHT0805 | 1.91 ± 0.152 | | 1.27 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.38 ± 0.13 |
| PZHT1206 | 3.06 ± 0.152 | | 1.6 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.40 ± 0.13 |
| PZHT2010 | 5.08 ± 0.152 | | 2.54 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.48 ± 0.13 |
| PZHT2512 | 6.35 ± 0.152 | | 3.3 ± 0.127 | | 0.5 ± 0.127 | | n/a | 0.48 ± 0.13 |

## SUGGESTED LAND PATTERN in millimeters

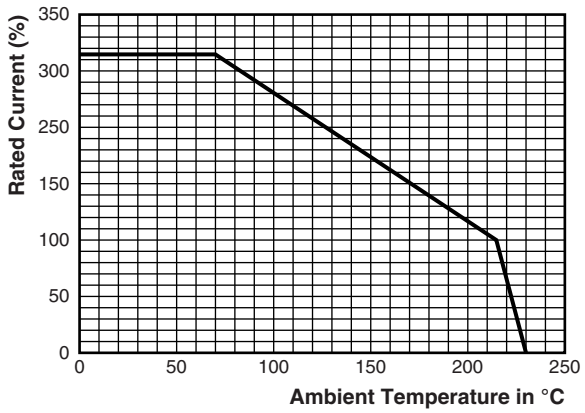



| TERMINATIONS | One face | Wraparound | One face | Wraparound | One face | Wraparound |
|---|---|---|---|---|---|---|
| MODEL | $Z_{max.}$ | | $G_{min.}$ | | $X_{max.}$ | |
| PZHT02016 | 0.55 | n/a | 0.15 | n/a | 0.50 | n/a |
| PZHT0402 | 1.15 | 1.55 | 0.15 | | 0.73 | |
| PZHT0603 | 1.67 | 2.37 | 0.35 | | 0.98 | |
| PZHT0805 | 2.06 | 2.76 | 0.74 | | 1.40 | |
| PZHT1206 | 3.21 | 3.91 | 1.85 | | 1.73 | |
| PZHT2010 | 5.23 | 5.93 | 3.71 | | 2.67 | |
| PZHT2512 | 6.5 | 7.20 | 4.91 | | 3.32 | |

## POWER DERATING CURVE




## CURRENT DERATED CURVE



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## PACKAGING

Antistatic packaging: waffle pack or paper tape or low conductivity plastic tape. PZHT02016 only available in plastic tape.

| SIZE | MOQ | NUMBER OF PIECES PER PACKAGE | | | TAPE WIDTH |
|---|---|---|---|---|---|
| | | WAFFLE PACK 2" × 2" | TAPE AND REEL | | |
| | | | MIN. | MAX. | |
| 02016 | 100 | n/a | 100 | 5000 | 8 mm |
| 0402 | | 340 | | | |
| 0603 | | 100 | | | |
| 0805 | | | | 4000 | |
| 1206 | | 140 | | | |
| 2010 | | 60 | | 1000 | |
| 2512 | | 50 | | 2000 | 12 mm |

## PACKAGING RULES

### Waffle Pack

Can be filled up to maximum quantity indicated in the table here above, taking into account the minimum order quantity. When quantity ordered exceeds maximum quantity of a single waffle pack, the waffle packs are stacked up on the top of each other and closed by one single cover. **To get "not stacked up" waffle pack in case of ordered quantity > maximum number of pieces per package: Please consult Vishay Sfernice for specific ordering code.**

### Tape and Reel

Can be filled up to maximum quantity indicated in the table here above, taking into account the minimum order quantity. When quantity ordered is between the MOQ and the maximum reel capacity, only one reel is provided. **When several reels are needed for ordered quantity within MOQ and maximum reel capacity: Please consult Vishay Sfernice for specific ordering code.**

Parts are packed: active face down.

## GLOBAL PART NUMBER INFORMATION

**Global Part Numbering: PZHT1206-0R00NT**

| P | Z | H | T | 1 | 2 | 0 | 6 | - | 0 | R | 0 | 0 | N | T | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| GLOBAL MODEL | SIZE | OHMIC VALUE | TERMINATION (1)(2) | PACKAGING |
|---|---|---|---|---|
| **PZHT** | **02016**<br>**0402**<br>**0603**<br>**0805**<br>**1206**<br>**2010**<br>**2512** | **0 Ω** | **P** = Au (one face)<br>**F** = tin / silver (one face)<br>**N** = tin / silver (wraparound)<br>**G** = Au (wraparound) | For more information see "Codification of packaging" table |

**Notes**

(1) PZHT02016: one face termination only

(2) P and G: for temperatures up to 230 °C
F and N: for temperatures up to 200 °C

## CODIFICATION OF PACKAGING

| CODE 18 | PACKAGING |
|---|---|
| **WAFFLE PACK (not available for 02016)** | |
| W | 100 min., 1 mult |
| WA | 100 min., 100 mult (available only in size 1206) |
| **PLASTIC TAPE (standard for all sizes)** | |
| T | 100 min., 1 mult |
| TA | 100 min., 100 mult |
| TB | 250 min., 250 mult |
| TC | 500 min., 500 mult |
| TD | 1000 min., 1000 mult |
| TE | 2500min., 2500 mult |
| TF | Full tape (quantity depending on size of chips) |
| **PAPER TAPE (Available for 0402, 0603, 0805 and 1206. Please consult Vishay Sfernice for other sizes.)** | |
| PT | 100 min., 1 mult |
| PA | 100 min., 100 mult |
| PB | 250 min., 250 mult |
| PC | 500 min., 500 mult |
| PD (not available for size 0402) | 1000 min., 1000 mult |
| PE (not available for size 0402) | 2500min., 2500 mult |
| PF (not available for size 0402) | Full tape (quantity depending on size of chips) |



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