

NTC Thermistors, Mini Lug Sensors



| QUICK REFERENCE DATA | | |
|--|----------------|----------|
| PARAMETER | VALUE | UNIT |
| Resistance value at 25 °C | 10K to 47K | Ω |
| Tolerance on R_{25} -value | ± 2 to ± 3 | % |
| $B_{25/85}$ -value | 3740 to 3984 | K |
| Tolerance on $B_{25/85}$ -value | ± 0.5 to ± 1.5 | % |
| Operating temperature range: At zero dissipation | - 40 to + 125 | °C |
| Response time | 3.5 | s |
| Thermal time constant τ | ≈ 5 | s |
| Dissipation factor δ | 10 | mW/K |
| Maximum power dissipation at 25 °C | 100 | mW |
| Min. dielectric withstanding voltage between terminals and lug | 1000 | V_{AC} |
| Climatic category (LCT/UCT/days) | 40/125/56 | - |
| Weight | | |
| without connector | 0.5 | g |
| with connector | 0.6 | g |

Note

- Other R_{25} values and tolerances available upon request

FEATURES

- Fast time response for surface applications compared to industry standard NTC lug sensors
- Reduced thermal gradient, due to the use of small dimensions and nickel conductor, allowing for an accurate surface temperature measurement
- The sensor is not suitable for being permanently in contact with water or liquids
- Small size connector and small lug ring tongue terminal, allowing for temperature sensing at locations where only limited space is available
- Connector ZHR-2 (optional)
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

APPLICATIONS

Thermistors used for surface temperature sensing and control in:

- Computer equipment
- MOSFETS, IC's, Power Electronics, heatsink temperature control, LED emitter heat-sink control
- Consumer appliances
- Industrial equipment
- Automotive equipment

DESCRIPTION

Miniature insulated chip thermistor with a negative temperature coefficient in accordance with IEC 60539. The device has no marking.

MOUNTING

- The sensor can be mounted by means of a screw. For stud size, metric 2 mm M2/American stud #1 or #2
- The end wire can be soldered, welded or crimped to a connector
- Optional connector for Wire-to-Wire or Wire-to-Board connections

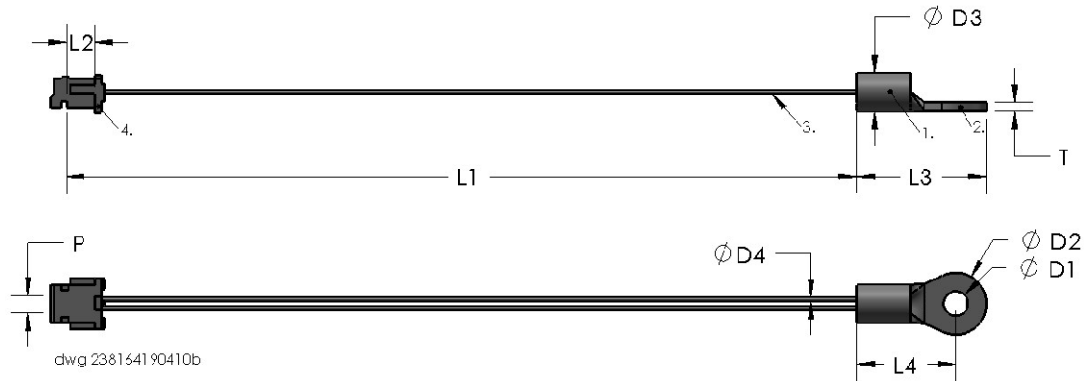
| ELECTRICAL DATA AND ORDERING INFORMATION | | | | | | |
|--|--------------------|------------------------|-------------------------|---------------------|--|-----------|
| R_{25} -VALUE (kΩ) | R_{25} -TOL. (%) | $B_{25/85}$ -VALUE (K) | $B_{25/85}$ -TOL. (± %) | SAP MATERIAL NUMBER | DESCRIPTION | R/T TABLE |
| 10 | ± 3 | 3984 | 0.5 | NTCALUG03A103H | NTC Mini Lug 10K 3 % 3984 K 0.5 % | Table 1 |
| 10 | ± 3 | 3984 | 0.5 | NTCALUG03A103HC | NTC Mini Lug 10K 3 % 3984 K 0.5 % with connector | Table 1 |
| 10 | ± 2 | 3984 | 0.5 | NTCALUG03A103G | NTC Mini Lug 10K 2 % 3984 K 0.5 % | Table 2 |
| 10 | ± 2 | 3984 | 0.5 | NTCALUG03A103GC | NTC Mini Lug 10K 2 % 3984 K 0.5 % with connector | Table 2 |
| 12 | ± 3 | 3740 | 1.5 | NTCALUG03A123H | NTC Mini Lug 12K 3 % | Table 3 |
| 12 | ± 3 | 3740 | 1.5 | NTCALUG03A123HC | NTC Mini Lug 12K 3 % with connector | Table 3 |
| 47 | ± 3 | 3740 | 1.5 | NTCALUG03A473H | NTC Mini Lug 47K 3 % | Table 4 |
| 47 | ± 3 | 3740 | 1.5 | NTCALUG03A473HC | NTC Mini Lug 47 kΩ 3 % with connector | Table 4 |

Note

- Ordering information can be found on: www.vishay.com/doc?33036



DIMENSIONS in millimeters



| L ₁ | L ₂ | L ₃ | L ₄ | L ₁ + L ₃ (item without connector) | Ø D ₁ | Ø D ₂ | Ø D ₃ | Ø D ₄ | T | Pitch P |
|----------------|----------------|----------------|----------------|---|------------------|------------------|------------------|------------------|-----------|-----------|
| 70 ± 5 | 4 ± 1 | 11.5 ± 0.3 | 8.8 ± 0.3 | 81.5 ± 5 | 2.2 ± 0.3 | 5.5 ± 0.3 | 3.4 ± 0.3 | 0.35 ± 0.1 | 0.8 ± 0.1 | 1.5 ± 0.3 |

Notes

- (1) Vishay Thermistor chip NTC, with epoxy coating and middle buffer layer
- (2) Metal ring lug, tin plated
- (3) Insulated leads: AWG#32, monostranded, diam 0.20 mm, silver plated Nickel, insulated, diameter 0.35 mm
- (4) End wire stripped or 2-poles connector crimped (optional)

MOUNTING

- With screw size metric M2, or American stud 1-2
- For the type without connector, the electrical connection can be made by soldering, crimping or welding.
- For the type with connector, the connector can mate with following counter-connectors ⁽⁵⁾:
 - A. One of the PCB connector - Through Hole:
 - JST B 2B-ZR (top entry)
 - JST S 2B-ZR (side entry)
 - JST B 2B-ZR-3.4 (top entry, for 1.6 mm board)
 - JST S 2B-ZR-3.4 (side entry, for 1.6 mm board)
 - B. One of the PCB Board connector - SMT Surface Mount:
 - JST S 2B-ZR-SM2-TF (SM2 side entry)
 - JST B 2B-ZR-SM3-TF (SM3 top entry)
 - JST S 2B-ZR-SM3A-TF (SM3 side entry)
 - JST B 2B-ZR-SM4-TF (SM4 top entry)
 - JST S 2B-ZR-SM4A-TF (SM4 side entry)
 - C. The Wire-to-wire connector:
 - JST ZMR-02 housing (x 1) + JST SMM-033T-P0.5 terminals (x 2)

Note

⁽⁵⁾ Additional details and dimensions can be found in JST ZH and JST ZM datasheets.

PACKAGING

Available in plastic bags of 250 pieces. SPQ = 2000 pieces

DESIGN-IN SUPPORT

- Other resistance curves and tolerances are available on request
- Consult Vishay for other lead length, other connector crimping or other features
- Other applicable screw size are available, for example stud size metric 3 mm/American 3 to 4
- 3D solid models: www.vishay.com/doc?29106
- NTC curve computation: www.vishay.com/resistors-non-linear/curve-computation-list/



For complete Curve Computation, visit: www.vishay.com/resistors-non-linear/curve-computation-list/

TABLE 1

| | |
|-----------------|--|
| NTCALUG03A103H | NTC Mini Lug 10K 3 % 3984 K 0.5 % |
| NTCALUG03A103HC | NTC Mini Lug 10K 3 % 3984 K 0.5 % with connector |

| RESISTANCE TEMPERATURE CHARACTERISTICS | | | | | | | |
|---|---------------|----------------|------------------|----------------|----------------|----------------|----------------|
| TEMP. (°C) | $R(T)/R_{25}$ | RESISTANCE (Ω) | $\Delta R/R$ (%) | α (%/K) | ΔT (K) | $R_{MIN.}$ (Ω) | $R_{MAX.}$ (Ω) |
| - 40 | 33.427 | 334 274 | 4.92 | - 6.63 | 0.74 | 317 833 | 350 716 |
| - 35 | 24.132 | 241 323 | 4.73 | - 6.41 | 0.74 | 229 899 | 252 747 |
| - 30 | 17.613 | 176 133 | 4.56 | - 6.19 | 0.74 | 168 107 | 184 158 |
| - 25 | 12.990 | 129 900 | 4.39 | - 5.99 | 0.73 | 124 202 | 135 598 |
| - 20 | 9.676 | 96 761 | 4.22 | - 5.79 | 0.73 | 92 675 | 100 848 |
| - 15 | 7.276 | 72 765 | 4.07 | - 5.61 | 0.73 | 69 806 | 75 723 |
| - 10 | 5.522 | 55 218 | 3.92 | - 5.43 | 0.72 | 53 056 | 57 380 |
| - 5 | 4.227 | 42 268 | 3.77 | - 5.26 | 0.72 | 40 674 | 43 861 |
| 0 | 3.262 | 32 624 | 3.63 | - 5.10 | 0.71 | 31 440 | 33 808 |
| 5 | 2.538 | 25 381 | 3.49 | - 4.94 | 0.71 | 24 494 | 26 268 |
| 10 | 1.990 | 19 897 | 3.36 | - 4.80 | 0.70 | 19 227 | 20 566 |
| 15 | 1.571 | 15 711 | 3.24 | - 4.65 | 0.70 | 15 202 | 16 220 |
| 20 | 1.249 | 12 493 | 3.12 | - 4.52 | 0.69 | 12 103 | 12 882 |
| 25 | 1.000 | 10 000 | 3.00 | - 4.39 | 0.68 | 9700.0 | 10 300 |
| 30 | 0.806 | 8056.0 | 3.11 | - 4.26 | 0.73 | 7805.1 | 8306.8 |
| 35 | 0.653 | 6529.7 | 3.22 | - 4.14 | 0.78 | 6319.3 | 6740.2 |
| 40 | 0.532 | 5323.9 | 3.33 | - 4.03 | 0.83 | 5146.6 | 5501.1 |
| 45 | 0.437 | 4365.3 | 3.43 | - 3.92 | 0.88 | 4215.4 | 4515.1 |
| 50 | 0.360 | 3598.7 | 3.53 | - 3.81 | 0.93 | 3471.6 | 3725.8 |
| 55 | 0.298 | 2982.3 | 3.63 | - 3.71 | 0.98 | 2874.0 | 3090.5 |
| 60 | 0.248 | 2483.8 | 3.72 | - 3.61 | 1.03 | 2391.3 | 2576.3 |
| 65 | 0.208 | 2078.7 | 3.81 | - 3.51 | 1.09 | 1999.4 | 2157.9 |
| 70 | 0.175 | 1747.7 | 3.90 | - 3.42 | 1.14 | 1679.5 | 1815.9 |
| 75 | 0.148 | 1475.9 | 3.99 | - 3.34 | 1.20 | 1417.1 | 1534.8 |
| 80 | 0.125 | 1251.8 | 4.07 | - 3.25 | 1.25 | 1200.8 | 1302.8 |
| 85 | 0.107 | 1066.1 | 4.15 | - 3.17 | 1.31 | 1021.8 | 1110.4 |
| 90 | 0.091 | 911.59 | 4.23 | - 3.09 | 1.37 | 873.01 | 950.16 |
| 95 | 0.078 | 782.46 | 4.31 | - 3.02 | 1.43 | 748.75 | 816.17 |
| 100 | 0.067 | 674.11 | 4.38 | - 2.94 | 1.49 | 644.56 | 703.66 |
| 105 | 0.058 | 582.84 | 4.46 | - 2.87 | 1.55 | 556.87 | 608.82 |
| 110 | 0.051 | 505.68 | 4.53 | - 2.81 | 1.61 | 482.79 | 528.57 |
| 115 | 0.044 | 440.19 | 4.60 | - 2.74 | 1.68 | 419.96 | 460.42 |
| 120 | 0.038 | 384.41 | 4.66 | - 2.68 | 1.74 | 366.49 | 402.34 |
| 125 | 0.034 | 336.75 | 4.73 | - 2.62 | 1.81 | 320.83 | 352.67 |



For complete Curve Computation, visit: www.vishay.com/resistors-non-linear/curve-computation-list/

TABLE 2

| | |
|-----------------|--|
| NTCALUG03A103G | NTC Mini Lug 10K 2 % 3984 K 0.5 % |
| NTCALUG03A103GC | NTC Mini Lug 10K 2 % 3984 K 0.5 % with connector |

| RESISTANCE TEMPERATURE CHARACTERISTICS | | | | | | | |
|---|---------------|----------------|------------------|----------------|----------------|----------------|----------------|
| TEMP. (°C) | $R(T)/R_{25}$ | RESISTANCE (Ω) | $\Delta R/R$ (%) | α (%/K) | ΔT (K) | $R_{MIN.}$ (Ω) | $R_{MAX.}$ (Ω) |
| - 40 | 33.427 | 334 274 | 3.90 | - 6.63 | 0.59 | 321 238 | 347 311 |
| - 35 | 24.132 | 241 323 | 3.72 | - 6.41 | 0.58 | 232 353 | 250 293 |
| - 30 | 17.613 | 176 133 | 3.54 | - 6.19 | 0.57 | 169 895 | 182 370 |
| - 25 | 12.990 | 129 900 | 3.37 | - 5.99 | 0.56 | 125 518 | 134 282 |
| - 20 | 9.676 | 96 761 | 3.21 | - 5.79 | 0.55 | 93 654 | 99 869 |
| - 15 | 7.276 | 72 765 | 3.06 | - 5.61 | 0.54 | 70 541 | 74 988 |
| - 10 | 5.522 | 55 218 | 2.91 | - 5.43 | 0.54 | 53 613 | 56 823 |
| - 5 | 4.227 | 42 268 | 2.76 | - 5.26 | 0.53 | 41 100 | 43 435 |
| 0 | 3.262 | 32 624 | 2.62 | - 5.10 | 0.51 | 31 768 | 33 480 |
| 5 | 2.538 | 25 381 | 2.49 | - 4.94 | 0.50 | 24 749 | 26 013 |
| 10 | 1.990 | 19 897 | 2.36 | - 4.80 | 0.49 | 19 427 | 20 367 |
| 15 | 1.571 | 15 711 | 2.24 | - 4.65 | 0.48 | 15 360 | 16 063 |
| 20 | 1.249 | 12 493 | 2.12 | - 4.52 | 0.47 | 12 228 | 12 757 |
| 25 | 1.000 | 10 000 | 2.00 | - 4.39 | 0.46 | 9800.0 | 10 200 |
| 30 | 0.806 | 8056.0 | 2.11 | - 4.26 | 0.50 | 7885.8 | 8226.1 |
| 35 | 0.653 | 6529.7 | 2.22 | - 4.14 | 0.54 | 6384.7 | 6674.8 |
| 40 | 0.532 | 5323.9 | 2.33 | - 4.03 | 0.58 | 5200.0 | 5447.7 |
| 45 | 0.437 | 4365.3 | 2.43 | - 3.92 | 0.62 | 4259.3 | 4471.3 |
| 50 | 0.360 | 3598.7 | 2.53 | - 3.81 | 0.66 | 3507.8 | 3689.7 |
| 55 | 0.298 | 2982.3 | 2.62 | - 3.71 | 0.71 | 2904.0 | 3060.5 |
| 60 | 0.248 | 2483.8 | 2.72 | - 3.61 | 0.75 | 2416.4 | 2551.3 |
| 65 | 0.208 | 2078.7 | 2.81 | - 3.51 | 0.80 | 2020.3 | 2137.0 |
| 70 | 0.175 | 1747.7 | 2.89 | - 3.42 | 0.85 | 1697.1 | 1798.2 |
| 75 | 0.148 | 1475.9 | 2.98 | - 3.34 | 0.89 | 1432.0 | 1519.9 |
| 80 | 0.125 | 1251.8 | 3.06 | - 3.25 | 0.94 | 1213.5 | 1290.1 |
| 85 | 0.107 | 1066.1 | 3.14 | - 3.17 | 0.99 | 1032.6 | 1099.6 |
| 90 | 0.091 | 911.59 | 3.22 | - 3.09 | 1.04 | 882.23 | 940.94 |
| 95 | 0.078 | 782.46 | 3.30 | - 3.02 | 1.09 | 756.67 | 808.25 |
| 100 | 0.067 | 674.11 | 3.37 | - 2.94 | 1.14 | 651.40 | 696.83 |
| 105 | 0.058 | 582.84 | 3.44 | - 2.87 | 1.20 | 562.79 | 602.90 |
| 110 | 0.051 | 505.68 | 3.51 | - 2.81 | 1.25 | 487.92 | 523.43 |
| 115 | 0.044 | 440.19 | 3.58 | - 2.74 | 1.31 | 424.43 | 455.95 |
| 120 | 0.038 | 384.41 | 3.65 | - 2.68 | 1.36 | 370.39 | 398.43 |
| 125 | 0.034 | 336.75 | 3.71 | - 2.62 | 1.42 | 324.25 | 349.25 |



For complete Curve Computation, visit: www.vishay.com/resistors-non-linear/curve-computation-list/

TABLE 3

| | |
|-----------------|-------------------------------------|
| NTCALUG03A123H | NTC Mini Lug 12K 3 % |
| NTCALUG03A123HC | NTC Mini Lug 12K 3 % with connector |

| RESISTANCE TEMPERATURE CHARACTERISTICS | | | | | | | |
|---|---------------|----------------|------------------|----------------|----------------|----------------|----------------|
| TEMP. (°C) | $R(T)/R_{25}$ | RESISTANCE (Ω) | $\Delta R/R$ (%) | α (%/K) | ΔT (K) | $R_{MIN.}$ (Ω) | $R_{MAX.}$ (Ω) |
| - 40 | 25.783 | 309 396 | 8.40 | - 6.07 | 1.38 | 283 397 | 335 395 |
| - 35 | 19.125 | 229 504 | 7.88 | - 5.88 | 1.34 | 211 413 | 247 595 |
| - 30 | 14.320 | 171 840 | 7.38 | - 5.70 | 1.30 | 159 152 | 184 528 |
| - 25 | 10.819 | 129 825 | 6.90 | - 5.52 | 1.25 | 120 861 | 138 789 |
| - 20 | 8.244 | 98 933 | 6.45 | - 5.35 | 1.20 | 92 556 | 105 309 |
| - 15 | 6.335 | 76 019 | 6.00 | - 5.19 | 1.16 | 71 455 | 80 582 |
| - 10 | 4.907 | 58 879 | 5.58 | - 5.03 | 1.11 | 55 595 | 62 163 |
| - 5 | 3.829 | 45 953 | 5.17 | - 4.88 | 1.06 | 43 578 | 48 328 |
| 0 | 3.011 | 36 129 | 4.77 | - 4.74 | 1.01 | 34 405 | 37 854 |
| 5 | 2.384 | 28 607 | 4.39 | - 4.60 | 0.95 | 27 350 | 29 864 |
| 10 | 1.900 | 22 804 | 4.03 | - 4.47 | 0.90 | 21 886 | 23 723 |
| 15 | 1.525 | 18 298 | 3.67 | - 4.34 | 0.85 | 17 626 | 18 970 |
| 20 | 1.231 | 14 773 | 3.33 | - 4.22 | 0.79 | 14 281 | 15 265 |
| 25 | 1.000 | 12 000 | 3.00 | - 4.10 | 0.73 | 11 640 | 12 360 |
| 30 | 0.817 | 9803.7 | 3.32 | - 3.99 | 0.83 | 9478.2 | 10 129 |
| 35 | 0.671 | 8053.9 | 3.63 | - 3.88 | 0.94 | 7761.7 | 8346.2 |
| 40 | 0.554 | 6651.9 | 3.93 | - 3.77 | 1.04 | 6390.6 | 6913.2 |
| 45 | 0.460 | 5522.3 | 4.22 | - 3.67 | 1.15 | 5289.3 | 5755.2 |
| 50 | 0.384 | 4607.2 | 4.50 | - 3.58 | 1.26 | 4399.9 | 4814.5 |
| 55 | 0.322 | 3862.1 | 4.77 | - 3.48 | 1.37 | 3677.8 | 4046.4 |
| 60 | 0.271 | 3252.4 | 5.04 | - 3.39 | 1.48 | 3088.6 | 3416.2 |
| 65 | 0.229 | 2751.1 | 5.29 | - 3.30 | 1.60 | 2605.5 | 2896.7 |
| 70 | 0.195 | 2336.9 | 5.54 | - 3.22 | 1.72 | 2207.4 | 2466.4 |
| 75 | 0.166 | 1993.3 | 5.78 | - 3.14 | 1.84 | 1878.0 | 2108.6 |
| 80 | 0.142 | 1707.0 | 6.02 | - 3.06 | 1.96 | 1604.2 | 1809.7 |
| 85 | 0.122 | 1467.3 | 6.25 | - 2.99 | 2.09 | 1375.7 | 1559.0 |
| 90 | 0.105 | 1266.0 | 6.47 | - 2.92 | 2.22 | 1184.1 | 1347.9 |
| 95 | 0.091 | 1096.2 | 6.69 | - 2.85 | 2.35 | 1022.9 | 1169.4 |
| 100 | 0.079 | 952.38 | 6.90 | - 2.78 | 2.48 | 886.71 | 1018.0 |
| 105 | 0.069 | 830.20 | 7.10 | - 2.71 | 2.62 | 771.26 | 889.15 |
| 110 | 0.061 | 726.02 | 7.30 | - 2.65 | 2.75 | 673.03 | 779.02 |
| 115 | 0.053 | 636.88 | 7.49 | - 2.59 | 2.89 | 589.16 | 684.61 |
| 120 | 0.047 | 560.36 | 7.68 | - 2.53 | 3.04 | 517.31 | 603.41 |
| 125 | 0.041 | 494.46 | 7.87 | - 2.47 | 3.18 | 455.56 | 533.37 |



For complete Curve Computation, visit: www.vishay.com/resistors-non-linear/curve-computation-list/

TABLE 4

| | |
|-----------------|-------------------------------------|
| NTCALUG03A473H | NTC Mini Lug 47K 3 % |
| NTCALUG03A473HC | NTC Mini Lug 47K 3 % with connector |

| RESISTANCE TEMPERATURE CHARACTERISTICS | | | | | | | |
|---|---------------|----------------|------------------|----------------|----------------|----------------|----------------|
| TEMP. (°C) | $R(T)/R_{25}$ | RESISTANCE (Ω) | $\Delta R/R$ (%) | α (%/K) | ΔT (K) | $R_{MIN.}$ (Ω) | $R_{MAX.}$ (Ω) |
| - 40 | 25.783 | 1 211 802 | 8.40 | - 6.07 | 1.38 | 1 109 973 | 1 313 631 |
| - 35 | 19.125 | 898 891 | 7.88 | - 5.88 | 1.34 | 828 034 | 969 749 |
| - 30 | 14.320 | 673 040 | 7.38 | - 5.70 | 1.30 | 623 344 | 722 736 |
| - 25 | 10.819 | 508 481 | 6.90 | - 5.52 | 1.25 | 473 370 | 543 592 |
| - 20 | 8.244 | 387 486 | 6.45 | - 5.35 | 1.20 | 362 512 | 412 460 |
| - 15 | 6.335 | 297 740 | 6.00 | - 5.19 | 1.16 | 279 866 | 315 613 |
| - 10 | 4.907 | 230 608 | 5.58 | - 5.03 | 1.11 | 217 745 | 243 471 |
| - 5 | 3.829 | 179 983 | 5.17 | - 4.88 | 1.06 | 170 681 | 189 285 |
| 0 | 3.011 | 141 507 | 4.77 | - 4.74 | 1.01 | 134 752 | 148 262 |
| 5 | 2.384 | 112 043 | 4.39 | - 4.60 | 0.95 | 107 121 | 116 966 |
| 10 | 1.900 | 89 317 | 4.03 | - 4.47 | 0.90 | 85 721 | 92 914 |
| 15 | 1.525 | 71 665 | 3.67 | - 4.34 | 0.85 | 69 033 | 74 297 |
| 20 | 1.231 | 57 863 | 3.33 | - 4.22 | 0.79 | 55 936 | 59 790 |
| 25 | 1.000 | 47 000 | 3.00 | - 4.10 | 0.73 | 45 590 | 48 410 |
| 30 | 0.817 | 38 398 | 3.32 | - 3.99 | 0.83 | 37 123 | 39 672 |
| 35 | 0.671 | 31 545 | 3.63 | - 3.88 | 0.94 | 30 400 | 32 689 |
| 40 | 0.554 | 26 053 | 3.93 | - 3.77 | 1.04 | 25 030 | 27 077 |
| 45 | 0.460 | 21 629 | 4.22 | - 3.67 | 1.15 | 20 717 | 22 541 |
| 50 | 0.384 | 18 045 | 4.50 | - 3.58 | 1.26 | 17 233 | 18 857 |
| 55 | 0.322 | 15 127 | 4.77 | - 3.48 | 1.37 | 14 405 | 15 848 |
| 60 | 0.271 | 12 739 | 5.04 | - 3.39 | 1.48 | 12 097 | 13 380 |
| 65 | 0.229 | 10 775 | 5.29 | - 3.30 | 1.60 | 10 205 | 11 345 |
| 70 | 0.195 | 9153.0 | 5.54 | - 3.22 | 1.72 | 8645.8 | 9660.2 |
| 75 | 0.166 | 7807.1 | 5.78 | - 3.14 | 1.84 | 7355.6 | 8258.7 |
| 80 | 0.142 | 6685.6 | 6.02 | - 3.06 | 1.96 | 6283.2 | 7087.9 |
| 85 | 0.122 | 5747.0 | 6.25 | - 2.99 | 2.09 | 5388.0 | 6106.0 |
| 90 | 0.105 | 4958.4 | 6.47 | - 2.92 | 2.22 | 4637.7 | 5279.2 |
| 95 | 0.091 | 4293.3 | 6.69 | - 2.85 | 2.35 | 4006.3 | 4580.3 |
| 100 | 0.079 | 3730.1 | 6.90 | - 2.78 | 2.48 | 3472.9 | 3987.3 |
| 105 | 0.069 | 3251.6 | 7.10 | - 2.71 | 2.62 | 3020.8 | 3482.5 |
| 110 | 0.061 | 2843.6 | 7.30 | - 2.65 | 2.75 | 2636.0 | 3051.2 |
| 115 | 0.053 | 2494.5 | 7.49 | - 2.59 | 2.89 | 2307.5 | 2681.4 |
| 120 | 0.047 | 2194.7 | 7.68 | - 2.53 | 3.04 | 2026.1 | 2363.4 |
| 125 | 0.041 | 1936.6 | 7.87 | - 2.47 | 3.18 | 1784.3 | 2089.0 |



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Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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