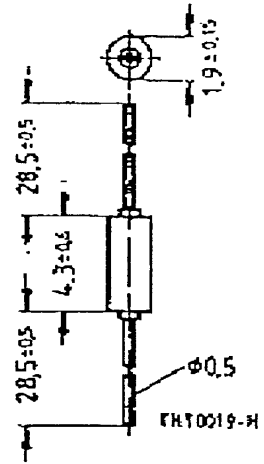


Anwendung

- Temperaturmessung bei höheren Temperaturen, z. B. im Bügeleisen oder Ansaugluft im Kfz

Merkmale

- Heißleiterscheibe in Glasgehäuse (hermetisch dicht) eingeschmolzen
- Axiale Ausführung, Anschlußdrähte FeNi, verzinkt
- Nur gegurte! (VE: 1000 St.) lieferbar (Siehe Kap. Gurting, S. 311)
- Kostengünstiges Bauelement



Maße in mm, Gewicht ca. 0.2 g

Optionen

Weitere Toleranzen auf Anfrage

| | | | |
|-----------------------------------|----------------|----------------|------|
| Klimaprüfklasse (IEC 68-1) | | 55/300/56 | |
| Max. Leistung bei 25 °C | P_{25} | 400 | mW |
| Widerstandstoleranz | $\Delta R/R_N$ | ± 10 % | |
| Nenntemperatur | T_N | 25 | °C |
| B-Wert-Toleranz | $\Delta B/B$ | untere Tabelle | |
| Wärmeleitwert (Luft) | δ_{lh} | ca. 2.5 | mW/K |
| Therm. Abkühlzeitkonstante (Luft) | τ_c | ca. 4 | s |
| Wärmekapazität | C_{lh} | ca. 10 | mJ/K |

| Typ | R_{25} Ω | R/T-Kenn- linie Nr. | $B_{25/100}$ K | $\Delta B/B$ % | Bestell-Nummer |
|-----------------|---------------|------------------------|-------------------|-------------------|------------------|
| M 87/1 k/K100 | 1 k | 8110 | 3363 | 2.5 | B57087-M102-K100 |
| M 87/2 k/K100 | 2 k | 8010 | 3474 | 2.5 | B57087-M202-K100 |
| M 87/3 k/K100 | 3 k | 8010 | 3474 | 2.5 | B57087-M302-K100 |
| M 87/5 k/K100 | 5 k — | 8010 | 3474 | 2.5 | B57087-M502-K100 |
| M 87/10 k/K100 | 10 k — | 8010 | 3474 | 2.5 | B57087-M103-K100 |
| M 87/20 k/K100 | 20 k | 8016 | 3988 | 1.5 | B57087-M203-K100 |
| M 87/30 k/K100 | 30 k | 8016 | 3988 | 1.5 | B57087-M303-K100 |
| M 87/50 k/K100 | 50 k | 8016 | 3988 | 1.5 | B57087-M503-K100 |
| M 87/100 k/K100 | 100 k | 8016 | 3988 | 1.5 | B57087-M104-K100 |
| M 87/200 k/K100 | 200 k | 8001 | 4284 | 2.5 | B57087-M204-K100 |
| M 87/500 k/K100 | 500 k | 8001 | 4284 | 2.5 | B57087-M504-K100 |
| M 87/1 M/K100 | 1 M | 8001 | 4284 | 2.5 | B57087-M105-K100 |
| M 87/5 M/K100 | 5 M | 8106 | 4925 | 2.5 | B57087-M505-K100 |

| Number | 8005 | | 8010 | | 8011 | | 8012 | |
|--------|-------------------------------|----------------|-------------------------------|----------------|-------------------------------|----------------|-------------------------------|----------------|
| T (°C) | $B_{25/100} = 4747 \text{ K}$ | | $B_{25/100} = 3474 \text{ K}$ | | $B_{25/500} = 3530 \text{ K}$ | | $B_{25/100} = 3686 \text{ K}$ | |
| | R_T/R_{25} | α (%/K) | R_T/R_{25} | α (%/K) | R_T/R_{25} | α (%/K) | R_T/R_{25} | α (%/K) |
| -55.0 | 177.8 | 8.2 | 58.25 | 6.6 | 57.68 | 6.6 | 64.60 | 6.7 |
| -50.0 | 119.2 | 8.0 | 42.12 | 6.5 | 41.75 | 6.4 | 46.54 | 6.5 |
| -45.0 | 80.73 | 7.7 | 30.70 | 6.2 | 30.54 | 6.1 | 33.83 | 6.3 |
| -40.0 | 55.43 | 7.5 | 22.66 | 6.0 | 22.61 | 5.9 | 24.88 | 6.1 |
| -35.0 | 38.43 | 7.2 | 16.89 | 5.8 | 16.90 | 5.7 | 18.45 | 5.9 |
| -30.0 | 26.97 | 7.0 | 12.73 | 5.6 | 12.77 | 5.5 | 13.83 | 5.7 |
| -25.0 | 19.10 | 6.8 | 9.683 | 5.4 | 9.732 | 5.3 | 10.47 | 5.5 |
| -20.0 | 13.68 | 6.6 | 7.440 | 5.2 | 7.489 | 5.2 | 8.009 | 5.3 |
| -15.0 | 9.884 | 6.4 | 5.766 | 5.0 | 5.811 | 5.0 | 6.171 | 5.1 |
| -10.0 | 7.215 | 6.3 | 4.510 | 4.8 | 4.548 | 4.8 | 4.796 | 5.0 |
| -5.0 | 5.308 | 6.1 | 3.555 | 4.7 | 3.586 | 4.7 | 3.754 | 4.8 |
| 0.0 | 3.942 | 5.9 | 2.825 | 4.5 | 2.850 | 4.5 | 2.961 | 4.7 |
| 5.0 | 2.950 | 5.7 | 2.270 | 4.3 | 2.281 | 4.4 | 2.352 | 4.5 |
| 10.0 | 2.227 | 5.6 | 1.836 | 4.3 | 1.839 | 4.2 | 1.982 | 4.4 |
| 15.0 | 1.693 | 5.4 | 1.489 | 4.1 | 1.492 | 4.1 | 1.515 | 4.3 |
| 20.0 | 1.297 | 5.3 | 1.216 | 4.0 | 1.219 | 4.0 | 1.227 | 4.2 |
| 25.0 | 1.000 | 5.1 | 1.000 | 3.8 | 1.000 | 3.9 | 1.000 | 4.3 |
| 30.0 | 0.7764 | 5.0 | 0.8276 | 3.8 | 0.8265 | 3.8 | 0.8197 | 3.9 |
| 35.0 | 0.6067 | 4.9 | 0.6869 | 3.7 | 0.6863 | 3.7 | 0.6755 | 3.8 |
| 40.0 | 0.4772 | 4.8 | 0.5736 | 3.5 | 0.5730 | 3.6 | 0.5598 | 3.7 |
| 45.0 | 0.3774 | 4.6 | 0.4817 | 3.4 | 0.4804 | 3.5 | 0.4662 | 3.6 |
| 50.0 | 0.3004 | 4.5 | 0.4067 | 3.3 | 0.4048 | 3.4 | 0.3903 | 3.5 |
| 55.0 | 0.2405 | 4.4 | 0.3455 | 3.2 | 0.3427 | 3.3 | 0.3282 | 3.4 |
| 60.0 | 0.1936 | 4.3 | 0.2949 | 3.1 | 0.2915 | 3.2 | 0.2773 | 3.3 |
| 65.0 | 0.1567 | 4.2 | 0.2528 | 3.0 | 0.2491 | 3.1 | 0.2354 | 3.2 |
| 70.0 | 0.1275 | 4.1 | 0.2177 | 3.0 | 0.2138 | 3.0 | 0.2006 | 3.2 |
| 75.0 | 0.1042 | 4.0 | 0.1882 | 2.9 | 0.1843 | 2.9 | 0.1717 | 3.1 |
| 80.0 | 0.08562 | 3.9 | 0.1634 | 2.8 | 0.1594 | 2.9 | 0.1475 | 3.0 |
| 85.0 | 0.07067 | 3.8 | 0.1424 | 2.7 | 0.1385 | 2.8 | 0.1272 | 2.9 |
| 90.0 | 0.05858 | 3.7 | 0.1245 | 2.7 | 0.1207 | 2.7 | 0.1101 | 2.9 |
| 95.0 | 0.04877 | 3.6 | 0.1092 | 2.6 | 0.1055 | 2.7 | 0.09564 | 2.8 |
| 100.0 | 0.04077 | 3.6 | 0.09614 | 2.5 | 0.09260 | 2.6 | 0.08335 | 2.7 |
| 105.0 | 0.03421 | 3.5 | 0.08491 | 2.5 | 0.08150 | 2.5 | 0.07290 | 2.7 |
| 110.0 | 0.02862 | 3.4 | 0.07523 | 2.4 | 0.07195 | 2.5 | 0.06396 | 2.6 |
| 115.0 | 0.02438 | 3.3 | 0.06685 | 2.3 | 0.06370 | 2.4 | 0.05629 | 2.5 |
| 120.0 | 0.02076 | 3.2 | 0.05958 | 2.3 | 0.05655 | 2.3 | 0.04969 | 2.5 |
| 125.0 | 0.01764 | 3.2 | 0.05325 | 2.2 | 0.05038 | 2.3 | 0.04399 | 2.4 |
| 130.0 | 0.01508 | 3.1 | 0.04772 | 2.2 | 0.04500 | 2.2 | 0.03906 | 2.4 |
| 135.0 | 0.01294 | 3.0 | 0.04288 | 2.1 | 0.04028 | 2.2 | 0.03478 | 2.3 |

Temperaturmessung Glasumhüllte Perlen

467235
467243

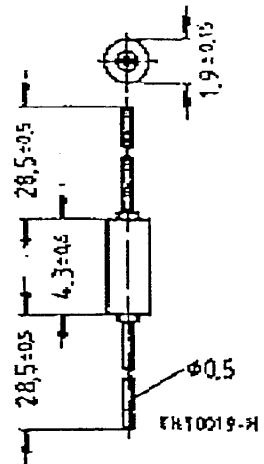
B 57087
M 87

Anwendung

- Temperaturmessung bei höheren Temperaturen, z. B. im Bügeleisen oder Ansaugluft im Kfz

Merkmale

- Heißleiterscheibe in Glasgehäuse (hermetisch dicht) eingeschmolzen
- Axiale Ausföhrung, Anschlußdrähte FeNi, verzinkt
- Nur gegurtet (VE: 1000 St.) lieferbar (Siehe Kap. Gurtung, S. 311)
- Kostengünstiges Bauelement



Maße in mm, Gewicht ca. 0.2 g

Optionen

Weitere Toleranzen auf Anfrage

| | | | |
|-----------------------------------|----------------|----------------|------|
| Klimaprüfklasse (IEC 68-1) | | 55/300/56 | |
| Max. Leistung bei 25 °C | P_{25} | 400 | mW |
| Widerstandstoleranz | $\Delta R/R_N$ | ± 10 % | |
| Nenntemperatur | T_N | 25 | °C |
| B-Wert-Toleranz | $\Delta B/B$ | untere Tabelle | |
| Wärmeleitwert (Luft) | δ_{th} | ca. 2.5 | mW/K |
| Therm. Abkühlzeitkonstante (Luft) | τ_c | ca. 4 | s |
| Wärmekapazität | C_{th} | ca. 10 | mJ/K |

| Typ | R_{25} Ω | R/T-Kenn- linie Nr. | $B_{25/100}$ K | $\Delta B/B$ % | Bestell-Nummer |
|-----------------|---------------|------------------------|-------------------|-------------------|------------------|
| M 87/1 k/K100 | 1 k | 8110 | 3363 | 2.5 | B57087-M102-K100 |
| M 87/2 k/K100 | 2 k | 8010 | 3474 | 2.5 | B57087-M202-K100 |
| M 87/3 k/K100 | 3 k | 8010 | 3474 | 2.5 | B57087-M302-K100 |
| M 87/5 k/K100 | 5 k — | 8010 | 3474 | 2.5 | B57087-M502-K100 |
| M 87/10 k/K100 | 10 k — | 8010 | 3474 | 2.5 | B57087-M103-K100 |
| M 87/20 k/K100 | 20 k | 8016 | 3988 | 1.5 | B57087-M203-K100 |
| M 87/30 k/K100 | 30 k | 8016 | 3988 | 1.5 | B57087-M303-K100 |
| M 87/50 k/K100 | 50 k | 8016 | 3988 | 1.5 | B57087-M503-K100 |
| M 87/100 k/K100 | 100 k | 8016 | 3988 | 1.5 | B57087-M104-K100 |
| M 87/200 k/K100 | 200 k | 8001 | 4284 | 2.5 | B57087-M204-K100 |
| M 87/500 k/K100 | 500 k | 8001 | 4284 | 2.5 | B57087-M504-K100 |
| M 87/1 M/K100 | 1 M | 8001 | 4284 | 2.5 | B57087-M105-K100 |
| M 87/5 M/K100 | 5 M | 8106 | 4925 | 2.5 | B57087-M505-K100 |

467235
467243



| Number | 8005 | | 8010 | | 8011 | | 8012 | |
|--------|-------------------------------|-----------------|-------------------------------|-----------------|-------------------------------|-----------------|-------------------------------|-----------------|
| | $B_{25/100} = 4747 \text{ K}$ | | $B_{25/100} = 3474 \text{ K}$ | | $B_{25/100} = 3530 \text{ K}$ | | $B_{25/100} = 3686 \text{ K}$ | |
| | R_T/R_{25} | $\alpha (\%/K)$ | R_T/R_{25} | $\alpha (\%/K)$ | R_T/R_{25} | $\alpha (\%/K)$ | R_T/R_{25} | $\alpha (\%/K)$ |
| -55.0 | 177.8 | 8.2 | 58.25 | 6.6 | 57.68 | 6.6 | 64.60 | 6.7 |
| -50.0 | 119.2 | 8.0 | 42.12 | 6.5 | 41.75 | 6.4 | 46.54 | 6.5 |
| -45.0 | 80.70 | 7.7 | 30.70 | 6.2 | 30.54 | 6.1 | 33.83 | 6.3 |
| -40.0 | 55.43 | 7.5 | 22.66 | 6.0 | 22.61 | 5.9 | 24.88 | 6.1 |
| -35.0 | 38.43 | 7.2 | 16.89 | 5.8 | 16.90 | 5.7 | 18.45 | 5.9 |
| -30.0 | 26.97 | 7.0 | 12.73 | 5.6 | 12.77 | 5.5 | 13.83 | 5.7 |
| -25.0 | 19.10 | 6.8 | 9.683 | 5.4 | 9.732 | 5.3 | 10.47 | 5.5 |
| -20.0 | 13.68 | 6.6 | 7.440 | 5.2 | 7.489 | 5.2 | 8.009 | 5.3 |
| -15.0 | 9.884 | 6.4 | 5.766 | 5.0 | 5.811 | 5.0 | 6.171 | 5.1 |
| -10.0 | 7.215 | 6.3 | 4.510 | 4.8 | 4.548 | 4.8 | 4.796 | 5.0 |
| -5.0 | 5.308 | 6.1 | 3.555 | 4.7 | 3.586 | 4.7 | 3.754 | 4.8 |
| 0.0 | 3.942 | 5.9 | 2.825 | 4.5 | 2.850 | 4.5 | 2.961 | 4.7 |
| 5.0 | 2.950 | 5.7 | 2.270 | 4.3 | 2.281 | 4.4 | 2.352 | 4.5 |
| 10.0 | 2.227 | 5.6 | 1.836 | 4.3 | 1.839 | 4.2 | 1.982 | 4.4 |
| 15.0 | 1.693 | 5.4 | 1.489 | 4.1 | 1.492 | 4.1 | 1.515 | 4.3 |
| 20.0 | 1.297 | 5.3 | 1.216 | 4.0 | 1.219 | 4.0 | 1.227 | 4.2 |
| 25.0 | 1.000 | 5.1 | 1.000 | 3.8 | 1.000 | 3.9 | 1.000 | 4.0 |
| 30.0 | 0.7764 | 5.0 | 0.8276 | 3.8 | 0.8265 | 3.8 | 0.8197 | 3.9 |
| 35.0 | 0.6067 | 4.9 | 0.6869 | 3.7 | 0.6863 | 3.7 | 0.6755 | 3.8 |
| 40.0 | 0.4772 | 4.8 | 0.5736 | 3.6 | 0.5730 | 3.6 | 0.5598 | 3.7 |
| 45.0 | 0.3774 | 4.6 | 0.4817 | 3.4 | 0.4804 | 3.5 | 0.4662 | 3.6 |
| 50.0 | 0.3004 | 4.5 | 0.4067 | 3.3 | 0.4048 | 3.4 | 0.3903 | 3.5 |
| 55.0 | 0.2405 | 4.4 | 0.3455 | 3.2 | 0.3427 | 3.3 | 0.3282 | 3.4 |
| 60.0 | 0.1936 | 4.3 | 0.2949 | 3.1 | 0.2915 | 3.2 | 0.2773 | 3.3 |
| 65.0 | 0.1567 | 4.2 | 0.2528 | 3.0 | 0.2491 | 3.1 | 0.2354 | 3.2 |
| 70.0 | 0.1275 | 4.1 | 0.2177 | 3.0 | 0.2138 | 3.0 | 0.2006 | 3.2 |
| 75.0 | 0.1042 | 4.0 | 0.1882 | 2.9 | 0.1843 | 2.9 | 0.1717 | 3.1 |
| 80.0 | 0.08562 | 3.9 | 0.1634 | 2.8 | 0.1594 | 2.9 | 0.1475 | 3.0 |
| 85.0 | 0.07067 | 3.8 | 0.1424 | 2.7 | 0.1385 | 2.8 | 0.1272 | 2.9 |
| 90.0 | 0.05958 | 3.7 | 0.1245 | 2.7 | 0.1207 | 2.7 | 0.1101 | 2.9 |
| 95.0 | 0.04877 | 3.6 | 0.1092 | 2.6 | 0.1055 | 2.7 | 0.09564 | 2.8 |
| 100.0 | 0.04077 | 3.6 | 0.09614 | 2.5 | 0.09260 | 2.6 | 0.08335 | 2.7 |
| 105.0 | 0.03421 | 3.5 | 0.08491 | 2.5 | 0.08150 | 2.5 | 0.07290 | 2.7 |
| 110.0 | 0.02862 | 3.4 | 0.07523 | 2.4 | 0.07195 | 2.5 | 0.06396 | 2.6 |
| 115.0 | 0.02438 | 3.3 | 0.06685 | 2.3 | 0.06370 | 2.4 | 0.05629 | 2.5 |
| 120.0 | 0.02070 | 3.2 | 0.05958 | 2.3 | 0.05655 | 2.3 | 0.04969 | 2.5 |
| 125.0 | 0.01764 | 3.2 | 0.05325 | 2.2 | 0.05038 | 2.3 | 0.04399 | 2.4 |
| 130.0 | 0.01508 | 3.1 | 0.04772 | 2.2 | 0.04500 | 2.2 | 0.03906 | 2.4 |
| 135.0 | 0.01294 | 3.0 | 0.04288 | 2.1 | 0.04028 | 2.2 | 0.03478 | 2.3 |