

High ohmic series

Type: CHF

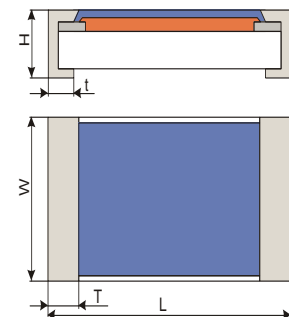
Sizes: 0402, 0603, 0805, 1206, 1210, 1218, 2010, 2512

Characteristics:

- Chip resistors in thick film technology
- Very high ohmic resistor layers
- Resistance area coated with glass and varnish passivation
- High stability and reliability
- Tight tolerances
- RoHS-conform
- Standard measuring voltage: 50V
- Application-specific measuring voltage acc. customer specifications available
- Customer specific barcodes available - also in 2D
- All sizes can be manufactured with the following contact variants
 - ⇒ Electroplated pure tin
 - ⇒ Contact with low rest permeability -N, suitable only for reflow soldering method (The recommended storage time should not exceed 1 year after delivery)
 - ⇒ Epoxy bondable contact -K
 - ⇒ Special corrosive gas resistant contact -S, Sulfur resistance verified according to ASTM B 809

Dimensions (in mm):

| Size | L Length | | W Width | | H Depth | | t Contact back | | T Contact front | |
|------|-------------|------|------------|------|------------|------|-------------------|------|--------------------|------|
| | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 0402 | 0,95 | 1,10 | 0,45 | 0,60 | 0,25 | 0,40 | 0,10 | 0,35 | 0,05 | 0,35 |
| 0603 | 1,50 | 1,70 | 0,75 | 0,95 | 0,35 | 0,55 | 0,10 | 0,50 | 0,10 | 0,50 |
| 0805 | 1,85 | 2,15 | 1,10 | 1,40 | 0,35 | 0,65 | 0,15 | 0,60 | 0,15 | 0,60 |
| 1206 | 2,90 | 3,35 | 1,45 | 1,75 | 0,35 | 0,65 | 0,25 | 0,75 | 0,15 | 0,75 |
| 1210 | 3,00 | 3,30 | 2,35 | 2,65 | 0,50 | 0,75 | 0,35 | 0,85 | 0,25 | 0,85 |
| 1218 | 3,00 | 3,30 | 4,50 | 4,80 | 0,50 | 0,75 | 0,35 | 0,85 | 0,25 | 0,85 |
| 2010 | 4,80 | 5,20 | 2,30 | 2,70 | 0,50 | 0,75 | 0,35 | 0,85 | 0,25 | 0,85 |
| 2512 | 6,10 | 6,50 | 3,00 | 3,30 | 0,50 | 0,75 | 0,35 | 0,85 | 0,25 | 0,85 |



Packaging units:

| Reel Ø | Card tape | Blister tape |
|--------------------|-------------------------|--------------|
| | acc. EN 60286-3 | |
| 180 mm | 5 T pcs. | 4 T pcs. |
| | 10 T pcs. for size 0402 | |
| 330 mm | 10 T pcs. | 8 T pcs. |
| | 20 T pcs. | 16 T pcs. |
| Samples on request | | |

Ordering information:

| CHF | - S | 0805 | 500M | 10% | 250ppm/K | N | P | 5 (optional) | 10V |
|------|---|--------------------|-----------------|--------------|-------------------|-----------------|--|------------------------------------|---|
| Type | Contact | Size | R-Value | ± Tolerance | ± TCR | Marking | Packaging | pcs. / Reel (T pcs.) | Measuring voltage [V] |
| CHF | Standard (without add.) -N (non magnetic) -K (epoxy bondable) -S (corrosive gas resistant) | 0402 to 2512 | 10M to 1G | 1 5 20 | 100 250 500 | N- only without | P- Card tape B- Blister tape S- Bulk | Depends on size and packaging unit | Variable acc. customer specifications (Standard: 50V) |

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Technical data – depending on size:

| Size | Nominal voltage U _{max} (V) | Load P ₇₀ (W) | R-Range ¹⁾ | R-Tolerance (± %) | TCR (± ppm/K) | Packaging | | |
|-------------|---|-----------------------------|-----------------------|-------------------------|-------------------------|-----------------|-----------------|---|
| | | | | | | P | B | S |
| 0402 | 50 | $P = \frac{U^2}{R}$ | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | x | | x |
| | | | >330M - 500M | 5 / 10 / 20 | 250 | x | | x |
| | | | >500M - 1G00 | 5 / 10 / 20 | 500 | x | | x |
| 0603 | 75 | | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | x | | x |
| | | | >330M - 500M | 5 / 10 / 20 | 250 | x | | x |
| | | | >500M - 1G00 | 5 / 10 / 20 | 500 | x | | x |
| 0805 | 150 | | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | x | | x |
| | | | >330M - 500M | 5 / 10 / 20 | 250 | x | | x |
| | | | >500M - 1G00 | 5 / 10 / 20 | 500 | x | | x |
| 1206 | 200 | | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | x | | x |
| | | | >330M - 500M | 5 / 10 / 20 | 250 | x | | x |
| | | | >500M - 1G00 | 5 / 10 / 20 | 500 | x | | x |
| 1210 / 1218 | 200 | | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | x ³⁾ | x ³⁾ | x |
| | | | >330M - 500M | 5 / 10 / 20 | 250 | x ³⁾ | x ³⁾ | x |
| | | | >500M - 1G00 | 5 / 10 / 20 | 500 | x ³⁾ | x ³⁾ | x |
| 2010 | 300 | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | | x | x | |
| | | >330M - 500M | 5 / 10 / 20 | 250 | | x | x | |
| | | >500M - 1G00 | 5 / 10 / 20 | 500 | | x | x | |
| 2512 | 500 | >10M0 - 330M | 1 / 2 / 5 / 10 | 100 ²⁾ / 250 | | x | x | |
| | | >330M - 500M | 5 / 10 / 20 | 250 | | x | x | |
| | | >500M - 1G00 | 5 / 10 / 20 | 500 | | x | x | |

Higher resistor values on request

¹⁾ Measuring voltage 50 V

²⁾ >10M to 100M TCR ±100

³⁾ Size 1210 card tape

Technical data - general:

| Technical data | |
|--|--------------------------------|
| Operating temperature range | -55°C ... +155°C |
| Climatic category acc. EN 60068 | 55 / 155 / 56 |
| Solderability acc. EN 60068-2-58 | 245°C 3s |
| Soldering heat resistance acc. EN 60068-2-58 | ±(0,5% + 0,05R) at 260°C 10s |
| Long time stability | |
| Storage 155°C / 1000h | ± (1,0% + 0,05R) |
| Endurance P ₇₀ / 70°C / 1000h | ± (0,5% + 0,05R) |
| Damp heat, steady state (56d / 40°C / 93%) | ± (1,0% + 0,05R) |

Data, unless specified, acc. EN 140401-802.