

High ohmic series - Automotive variant

Type: **AHF**

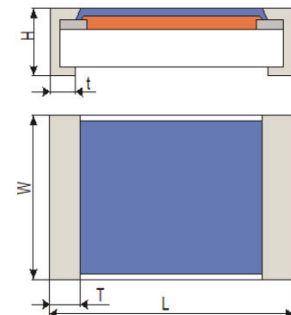
Sizes: **0402, 0603, 0805, 1206, 1210, 1218, 2010, 2512**

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
- AEC Q200 qualified
- RoHS-conform and Halogen-free according to IEC 61249-2-21 / IPC 4101B
- 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

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	1,05	0,45	0,55	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 acc. EN 60286-3	Blister tape
180 mm	5 T pcs. 10 T pcs. for size 0402	4 T pcs.
330 mm	10 T pcs. 20 T pcs.	8 T pcs. 16 T pcs.
Samples on request		

Ordering information:

AHF		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]
AHF	Standard (without add.)	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)

High ohmic series - Automotive variant

Type: AHF

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

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)
Biased humidity (1000h / 85°C / 85%)	± (2% +0,05R)

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