

SRT Resistor Technology

Thin film Chip Resistors

Type: **AR** (PR: anti-corrosive chip resistor)

Sizes: **0201, 0402, 0603, 0805, 1206, 1210, 2010, 2512**

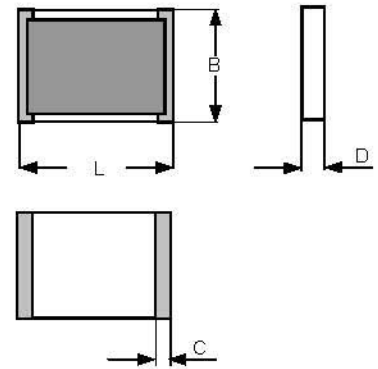
Features:

- Chip resistors in thin film technology
- NiCr-resistance element, passivated
- Anti-corrosive version with special passivation available (PR-series)
- Close tolerances - low TCR
- Pb-free terminations - RoHS compliant



Dimensions:

Size	L	B	D	C
0201	0.58 ±0.05	0.29 ±0.05	0.23 ±0.05	0.15 ±0.10
0402	1.00 ±0.05	0.50 ±0.05	0.30 ±0.05	0.20 ±0.10
0603	1.55 ±0.10	0.80 ±0.10	0.45 ±0.10	0.30 ±0.20
0805	2.00 ±0.15	1.25 ±0.15	0.55 ±0.10	0.40 ±0.25
1206	3.05 ±0.15	1.55 ±0.15	0.55 ±0.10	0.35 ±0.25
1210	3.10 ±0.15	2.40 ±0.15	0.55 ±0.10	0.55 ±0.25
2010	4.90 ±0.15	2.40 ±0.15	0.55 ±0.10	0.50 ±0.25
2512	6.30 ±0.15	3.10 ±0.15	0.55 ±0.10	0.50 ±0.25



L = length, B = Width, D = Thickness, C = Width wrap around (in mm)

Packaging:

Size	0201	0402	0603	0805	1206	1210	2010	2512
Pieces per tape	10,000		5,000				4,000	
Type of tape	Paper						Plastic	
Reel diameter	180 mm							

Ordering Data:

Type – value – tolerance – TCR (If no requirements for TCR, the highest value in table will be supplied)

Example: AR 2010 2R2 ±0.5% TCR 25

Minimum order quantity: 1000 pieces per value

Anti-corrosive version (PR) on request

Technical data - general:

Temperature range	-55°C ... +155°C
Climatic category acc. to EN 60068-1	55/155/56
Solderability acc. MIL-STD-202F Meth. 208H	245°C, 5s
Max. soldering temperature acc. MIL-STD-202F Meth. 210E (DIN EN 60068-2-58)	260°C, 10s
Long term stability	
Load Life (70°C, power 1.5h on, 0.5h off, 1000h)	ΔR < 0.2%
Short time overload (2.5x rated power, 5s)	ΔR < 0.5%
Humidity (40°C, 95%RH, power 1.5h on, 0.5h off, 1000h)	ΔR < 0.3%
Dry Heat (96h / 155°C)	ΔR < 0.2%

SRT Resistor Technology

Thin film Chip Resistors

Type: AR (PR: anti-corrosive chip resistor)

Sizes: 0201, 0402, 0603, 0805, 1206, 1210, 2010, 2512

Technical data – depending on size and value:

Size	Power rating P ₇₀ (mW)	Max. operating Voltage ²⁾	Max. overload Voltage	Resistance range	Tolerances	TCR (ppm/K)
0201	31.25	15 V	30 V	50R ... 5K	0.5%; 1%	25
				5k ... 33K		50
0402	62.5	25 V	50 V	10R ... 205K	0.1%; 0.25%; 0.5%	25 / 50
				49R9 ... 3k0	0.01%; 0.05%; 0.1%	5
				49R9 ... 12k0		10 / 15
0603	62.5	50 V	100 V	4R7 ... 150k	0.05%	25 / 50
				4R7 ... 1M	0.1%	
				2R ... 1M	0.25%; 0.5%	
				25R ... 15k	0.01%; 0.05%; 0.1%	5
				25R ... 100k		10 / 15
				4R7 ... 332k	0.1%	10
	100 ¹⁾	50 V ³⁾	100 V	4R7 ... 332k	0.1%; 0.25%; 0.5%	25 / 50
0805	100	100 V	200 V	4R7 ... 500k	0.05%; 0.1%	10 / 25 / 50
				4R7 ... 1M	0.1%	25 / 50
				1R0 ... 1M	0.25%; 0.5%	
				25R ... 30k	0.01%; 0.05%; 0.1%	5
	25R ... 200k	10 / 15				
125 ¹⁾	150 V ³⁾	300 V	4R7 ... 1M	0.1%; 0.25%; 0.5%	25 / 50	
1206	125	150 V	300 V	4R7 ... 1M	0.05%	25 / 50
				4R7 ... 2M5	0.1%	
				1R ... 2M5	0.25%; 0.5%	
				4R7 ... 1M	0.1%	10
				25R ... 50k	0.01%; 0.05%; 0.1%	5
	25R ... 500k	10 / 15				
250 ¹⁾	200 V ³⁾	400 V	4R7 ... 1M	0.1%; 0.25%; 0.5%	25 / 50	
1210	200	150 V	300 V	4R7 ... 1M	0.05%	25 / 50
				4R7 ... 2M5	0.1%	
				1R ... 2M5	0.25%; 0.5%	
				4R7 ... 1M	0.1%	10
				25R ... 50k	0.01%; 0.05%; 0.1%	5
	25R ... 500k	10 / 15				
333 ¹⁾	200 V ³⁾	400 V	4R7 ... 1M	0.1%; 0.25%; 0.5%	25 / 50	
2010	250	150 V	300 V	4R7 ... 1M	0.05%	25 / 50
				4R7 ... 3M	0.1%	
				1R ... 3M	0.25%; 0.5%	
				4R7 ... 1M	0.1%	10
				25R ... 100k	0.01%; 0.05%; 0.1%	5
				25R ... 500k		10 / 15
2512	500	150 V	300 V	4R7 ... 1M	0.05%	25 / 50
				4R7 ... 3M	0.1%	
				1R ... 3M	0.25%; 0.5%	
				4R7 ... 1M	0.1%	10
				25R ... 100k	0.01%; 0.05%; 0.1%	5
				25R ... 500k		10 / 15

¹⁾ Higher power rating P₇₀ (mW)

²⁾ Operating voltage: $U = \sqrt{P \cdot R}$

³⁾ Max. operating voltage for higher power rating