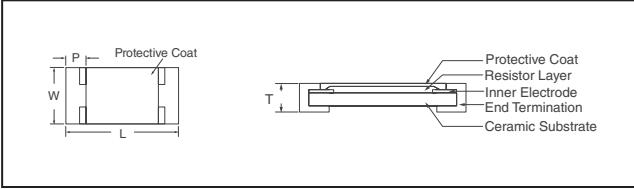


# YAGEO Surface Mount Thin Film Chip Resistors



**Description:**

The resistors are constructed out of a high-grade ceramic body. Internal metal electrodes are added at each end and connected by a resistive material. The composition of the resistive material is adjusted to give the approximate required resistance and laser cutting of this resistive layer that achieves tolerance trims the value. The resistive layer is covered with a protective coat and printed with the resistance value. Finally, the two external terminations (matte tin) are added.



Series	Power Rating @ 70°	Dimensions (mm)				Resistance Range	Temperature Coefficient
		L	W	P	T		
RT0603	1/10 Watt	1.6±0.10	.80±0.10	.25±0.15	.45±0.10	0.50%	±25ppm/°C
RT0805	1/8 Watt	2.00±0.10	1.25±0.10	.35±0.20	.50±0.10	0.50%	±50ppm/°C
RT0402	1/16 Watt	1.00±0.10	.50±0.50	.20±0.10	.35±0.05	0.50%	±50ppm/°C
RJ0805	1/10 Watt	2.00±0.10	1.25±0.10	.35±0.20	.50±0.10	1%	±50ppm/°C
RJ1206	1/8 Watt	3.10±0.10	1.60±0.10	.45±0.20	.55±0.10	1%	±50ppm/°C
RL0402	1/16 Watt	1.00±0.10	.50±0.05	.20±0.10	.35±0.05	1%	.10Ω - .82Ω ±800ppm/°C
RL0603	1/10 Watt	1.60±0.10	.80±0.10	.25±0.15	.45±0.10	1%	.10Ω - .47Ω ±800ppm/°C .56Ω - .82Ω ±300ppm/°C
RL0805	1/8 Watt	2.00±0.10	1.25±0.10	.35±0.20	.50±0.10	1%	.10Ω - .33Ω ±600ppm/°C .36Ω - .47Ω ±300ppm/°C .50Ω - .91Ω ±200ppm/°C
RL2512	1 Watt	6.35±0.10	3.20±0.15	.60±0.20	.55±0.10	1%	.01Ω - .015Ω ±1500ppm/°C .018Ω - .039Ω ±1200ppm/°C .047Ω ±800ppm/°C

## .5% 1/10 Watt — 0603 Series

**Resistor Values**

100	422	1.3K	3.57K	8.45K	20K	44.2K	124K
110	430	1.37K	3.6K	8.66K	20.5K	47K	130K
120	432	1.4K	3.9K	8.87K	21K	47.5K	140K
121	464	1.47K	3.92K	9.09K	21.5K	48.7K	147K
124	470	1.5K	4.02K	9.1K	22K	51K	150K
130	475	1.6K	4.22K	9.31K	22.1K	51.1K	160K
147	499	1.62K	4.3K	9.53K	22.6K	52.3K	165K
150	510	1.69K	4.7K	10K	23.2K	53.6K	178K
154	560	1.78K	4.75K	10.2K	24K	56K	180K
160	562	1.8K	4.87K	10.5K	24.3K	56.2K	200K
165	590	1.96K	4.99K	11K	24.9K	59K	220K
180	604	2.0K	5.1K	11.5K	27K	60.4K	221K
182	619	2.1K	5.11K	12K	27.4K	61.9K	240K
200	620	2.2K	5.36K	12.1K	28K	62K	243K
210	649	2.21K	5.49K	12.4K	28.7K	66.5K	249K
220	680	2.4K	5.6K	13K	29.4K	68K	255K
221	681	2.43K	5.62K	13.3K	30K	68.1K	270K
240	715	2.49K	5.9K	14K	30.1K	69.8K	300K
267	750	2.55K	6.04K	15K	32.4K	75K	301K
274	806	2.67K	6.2K	15.8K	33K	78.7K	309K
300	820	2.7K	6.34K	16K	33.2K	80.6K	324K
301	825	2.74K	6.8K	16.2K	34K	82K	330K
330	845	2.87K	6.81K	16.5K	34.8K	84.5K	332K
332	910	3.0K	6.98K	17.4K	36K	90.9K	
348	1.0K	3.01K	7.15K	17.8K	37.4K	91K	
360	1.1K	3.09K	7.5K	18K	39K	100K	
390	1.2K	3.16K	8.06K	18.2K	40.2K	107K	
392	1.21K	3.32K	8.2K	18.7K	43K	110K	
402	1.24K	3.4K	8.25K	19.6K	43.2K	120K	

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
100Ω - 332KΩ	311-(Value)DCT-ND	14.37	38.77	89.02	5,000	212.55/M	RT0603DRD07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## .5% 1/8 Watt — 0805 Series

**Resistor Values**

10	15	21.5	27	33	47	61.9	82
11	16	22	27.4	36	47.5	62	82.5
12	18	22.6	30	39	49.9	68	91
12.4	19.6	24	30.1	40.2	51	75	
13	20	24.9	32.4	43	56	80.6	

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
10 - 91Ω	311-(Value)BCT-ND	13.77	37.15	85.28	5,000	195.55/M	RT0805DRE07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## .5% 1/16 Watt — 0402 Series

**Resistor Values**

10	20	30	36	47	51	56.2	68
15	27	33	39	49.9	56	62	82

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
10 - 82Ω	311-(Value)UCT-ND	13.52	36.30	83.40	10,000	170.04/M	RT0402DRE07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1/10 Watt — 0805 Series

**Resistor Values**

3.0	3.6	4.3	5.1	6.2	7.5	9.1
3.3	3.9	4.7	5.6	6.8	8.2	10

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
3 - 10Ω	311-(Value)VCT-ND	9.35	25.08	57.56	5,000	102.03/M	RJ0805FRExxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1/8 Watt — 1206 Series

**Resistor Values**

3.0	3.3	3.6	3.9	4.3	4.7
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Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
3 - 4.7Ω	311-(Value)NCT-ND	10.37	27.97	64.19	5,000	127.53/M	RJ1206FRExxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1/16 Watt — 0402 Series

**Resistor Values**

.10	.15	.22	.33	.47	.68
.12	.18	.27	.39	.56	.82

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
.10 - .82Ω	311-(Value)PCT-ND	73.20	196.91	452.39	10,000	1343.32/M	RL0402FR-07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1/10 Watt — 0603 Series

**Resistor Values**

.10	.15	.22	.33	.47	.68
.12	.18	.27	.39	.56	.82

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
.10 - .82Ω	311-(Value)QCT-ND	73.20	196.91	452.39	5,000	1496.36/M	RL0603FR-07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1/8 Watt — 0805 Series

**Resistor Values**

.10	.16	.27	.43	.62
.11	.18	.30	.47	.68
.12	.20	.33	.50	.75
.13	.22	.36	.51	.82
.15	.24	.39	.56	.91

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
.10 - .91Ω	311-(Value)SCT-ND	73.20	196.91	452.39	5,000	1496.36/M	RL0805FR-07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

## 1% 1 Watt — 2512 Series

**Resistor Values**

.010	.018	.027	.039
.015	.022	.033	.047

Value Range	Digi-Key Part No.	Cut Tape Pricing			Tape and Reel <sup>⊕</sup>		Yageo Part No.
		10	50	200	Qty.	Price	
.010 - .047Ω	311-(Value)TCT-ND	42.77	151.34	498.47	4,000	1190.28/M	RL2512FK-07xxxxL

⊕ For Tape and Reel part number, change CT-ND to TR-ND.

Digi-Reel<sup>®</sup> Most SMT cutdown parts are available on a Digi-Reel<sup>®</sup>. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key<sup>®</sup> Services on page 2 for additional information.

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