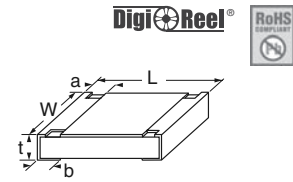


Panasonic 01005, 0201, 0402, 0603, 0805, 1206, 1210, 2010 and 2512 Surface Mount 5% Thick Film Chip Resistors — 1/32, 1/20, 1/10, 1/8, 1/4, 1/2, 3/4 and 1 Watt

Type	Power Rating	Max. RCWV	Overload Voltage	Dimensions – mm					Temperature Coefficient	Panasonic Part No.
				L	W	t	a	b		
01005	1/32W	15V	30V	0.40	0.20	0.13	0.10	0.10	<100Ω: ±300ppm/°C 100Ω<: ±200ppm/°C	ERJ-XGNJ
0201	1/20W	25V	50V	0.60	0.30	0.23	0.10	0.15		ERJ-1GEJ
0402	1/10W	50V	100V	1.00	0.50	0.35	0.20	0.25		ERJ-2GEJ
0603	1/10W	75V	150V	1.60	0.80	0.45	0.30	0.30		ERJ-3GEJ
0805	1/8W	150V	200V	2.00	1.25	0.60	0.40	0.40	<10Ω: -100ppm/°C ~ +600ppm/°C 10Ω ~ 1MΩ: ±200ppm/°C 1MΩ <: -400ppm/°C ~ +150ppm/°C	ERJ-6GEJ
1206	1/4W	200V	400V	3.20	1.60	0.60	0.50	0.50		ERJ-8GEJ
1210	1/2W	200V	400V	3.20	2.50	0.60	0.50	0.50		ERJ-14V
2010	3/4W	200V	500V	5.00	2.50	0.60	0.60	0.60		ERJ-12ZY
2512	1W	200V	500V	6.40	3.20	0.60	0.65	0.60		ERJ-1TY



Digi-Key® 1206, 1/4W, 5% Chip Resistor Assortments		Digi-Key® 0805, 1/8W, 5% Chip Resistor Assortments		Digi-Key® 0603, 1/10W, 5% Chip Resistor Assortments		Digi-Key® 0402, 1/10W, 5% Chip Resistor Assortments	
CR1A-KIT-ND 50 ea. of every other value from 10, 12, 15, 18, etc. 1.0M (3,050)	\$79.95	CR3A-KIT-ND 50 ea. of every other value from 10, 12, 15, 18, etc. 1.0M (3,050)	\$79.95	CR5A-KIT-ND 50 ea. of every other value from 10, 12, 15, 18, etc. 1.0M (3,050)	\$85.95	CR7A-KIT-ND 50 ea. of every other value from 10, 12, 15, 18, etc. 1.0M (3,050)	\$89.95
CR1-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR3-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR5-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR7-KIT-ND 200 ea. (same values as kit above)	\$169.00
CR2A-KIT-ND 50 ea. of every other value from 11, 13, 16, 20, etc. 910K (3,000)	\$79.95	CR4A-KIT-ND 50 ea. of every other value from 11, 13, 16, 20, etc. 910K (3,000)	\$79.95	CR6A-KIT-ND 50 ea. of every other value from 11, 13, 16, 20, etc. 910K (3,000)	\$85.95	CR8A-KIT-ND 50 ea. of every other value from 11, 13, 16, 20, etc. 910K (3,000)	\$89.95
CR2-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR4-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR6-KIT-ND 200 ea. (same values as kit above)	\$129.00	CR8-KIT-ND 200 ea. (same values as kit above)	\$169.00

01005 Series Standard Resistor Values					
10	82	680	5.6K	47K	390K
12	100	820	6.8K	56K	470K
15	120	1.0K	8.2K	68K	560K
18	150	1.2K	10K	82K	680K
22	180	1.5K	12K	100K	820K
27	220	1.8K	15K	120K	1.0M
33	270	2.2K	18K	150K	
39	330	2.7K	22K	180K	
47	390	3.3K	27K	220K	
56	470	3.9K	33K	270K	
68	560	4.7K	39K	330K	

0201, 0402, 0603, 0805, 1206, 1210, 2010 and 2512 Series Standard Resistor Values																	
1.0	2.7	6.8	18	47	120	330	820	2.2K	5.6K	15K	39K	100K	270K	680K	1.8M	4.7M	15M±
1.1	3.0	7.5	20	51	130	360	910	2.4K	6.2K	16K	43K	110K	300K	750K	2.0M	5.1M	18M±
1.2	3.3	8.2	22	56	150	390	1.0K	2.7K	6.8K	18K	47K	120K	330K	820K	2.2M	5.6M	22M±
1.3	3.6	9.1	24	62	160	430	1.1K	3.0K	7.5K	20K	51K	130K	360K	910K	2.4M	6.2M	
1.5	3.9	10	27	68	180	470	1.2K	3.3K	8.2K	22K	56K	150K	390K	1.0M	2.7M	6.8M	
1.6	4.3	11	30	75	200	510	1.3K	3.6K	9.1K	24K	62K	160K	430K	1.1M	3.0M	7.5M	
1.8	4.7	12	33	82	220	560	1.5K	3.9K	10K	27K	68K	180K	470K	1.2M	3.3M	8.2M	
2.0	5.1	13	36	91	240	620	1.6K	4.3K	11K	30K	75K	200K	510K	1.3M	3.6M	9.1M	
2.2	5.6	15	39	100	270	680	1.8K	4.7K	12K	33K	82K	220K	560K	1.5M	3.9M	10M	
2.4	6.2	16	43	110	300	750	2.0K	5.1K	13K	36K	91K	240K	620K	1.6M	4.3M	12M±	

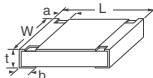
± 12M, 15M, 18M and 22M are 10% Tolerance

Description	Value Range	Digi-Key Part No. \$	Cut Tape Pricing				Digi-Key Part No. \$	Reel Qty.	Tape and Reel Pricing					Panasonic Part No.
			1	50	100	250			4,000	5,000	10,000	12,000	15,000	
01005, 1/32W, 5%	(1.0 ~ 1.0M)	P(Value)AWCT-ND†	.51	9.91	15.92	30.95	P(Value)AWTR-ND†	20,000	—	—	—	—	38.00/M	ERJ-XGNJxxv
0201, 1/20W, 5%	(1.0 ~ 10M)	P(Value)AGCT-ND†	.09	1.73	2.63	4.88	P(Value)AGTR-ND†	15,000	—	—	—	5.00/M	—	ERJ-1GEJxxv
0402, 1/10W, 5%	(1.0 ~ 10M)	P(Value)JCT-ND†	.05	.86	1.31	2.44	P(Value)JTR-ND†	10,000	—	—	2.00/M	—	—	ERJ-2GEJxxv
0603, 1/10W, 5%	(1.0 ~ 22M)‡	P(Value)GCT-ND†	.03	.52	.79	1.46	P(Value)GTR-ND†	5,000	—	1.71/M	1.49/M	—	—	ERJ-3GEJxxv
0805, 1/8W, 5%	(1.0 ~ 22M)‡	P(Value)ACT-ND†	.04	.81	1.23	2.28	P(Value)ACTR-ND†	5,000	—	3.00/M	2.00/M	—	—	ERJ-6GEJxxv
1206, 1/4W, 5%	(1.0 ~ 22M)‡	P(Value)ECT-ND†	.06	1.21	1.84	3.41	P(Value)ETR-ND†	5,000	—	4.00/M	3.00/M	—	—	ERJ-8GEJxxv
1210, 1/2W, 5%	(1.0 ~ 10M)	P(Value)WCT-ND	.34	6.83	10.53	20.48	P(Value)WTR-ND	5,000	—	23.00/M	22.00/M	—	—	ERJ-14Vxxv
2010, 3/4W, 5%	(1.0 ~ 10M)	P(Value)WCT-ND	.45	8.79	14.12	27.45	P(Value)WTR-ND	5,000	—	36.00/M	34.00/M	—	—	ERJ-12ZYxxv
2512, 1W, 5%	(1.0 ~ 2.2M)	PT(Value)XCT-ND	.87	17.83	29.45	58.13	PT(Value)XTR-ND	4,000	93.00/M	—	82.00/M	—	—	ERJ-1TYxxv

‡ 12M, 15M, 18M and 22M are 10% tolerance † 0.0Ω (zerohm) value also available § For complete part number, substitute the value from Standard Resistor Values charts for (Value).

Panasonic 5% – 0402, 0603, 0805, 1206, 1210, 2010, 2512 and 1% – 0402, 0603, 0805, 1206, 2512 Surface Mount Ultra Low Ohm Thick Film Chip Resistors — 1/10, 1/8, 1/4, 1/2 and 1 Watt

Rated Continuous Working Voltage (RCWV):
The rated voltage at each resistance should be calculated from the following equation:
 $RCWV = \sqrt{P \times R}$
 $RCWV(V) = P(W) \times R(\Omega)$
Maximum Overload Voltage = $RCWV \times 2.5$



5% and 1% 0402 Series Standard Resistor Values											
.047	.068	.10	.15	.22	.33	.47	.68				
.051	.075	.11	.16	.24	.36	.51	.75				
.056	.082	.12	.18	.27	.39	.56	.82				
.062	.091	.13	.20	.30	.43	.62	.91				

5% – 0603, 1206, 1210, 2010 and 2512 Series; 1% – 0603 and 1206 Series Standard Resistor Values											
.010	.013	.018	.024	.033	.043	.056	.075	.10	.18	.33	5.6 9.1
.011	.015	.020	.027	.036	.047	.062	.082	.12	.22	.39	6.8
.012	.016	.022	.030	.039	.051	.068	.091	.15	.27	.47	8.2

5% and 1% 0805 Series Standard Resistor Values											
.01	.013	.018	.024	.033	.043	.12	.22	.39	.68	1.2	2.2 3.9 6.8
.011	.015	.020	.027	.036	.047	.15	.27	.47	.82	1.5	2.7 4.7 8.2
.012	.016	.022	.030	.039	.10	.18	.33	.56	1.0	1.8	3.3 5.6 9.1

1% – 2512 Series Standard Resistor Values											
.22	.30	.39	.51	.68	.91	1.2	1.6	2.2	3.0	3.9	5.1 6.8 9.1
.24	.33	.43	.56	.75	1.0	1.3	1.8	2.4	3.3	4.3	5.6 7.5
.27	.36	.47	.62	.82	1.1	1.5	2.0	2.7	3.6	4.7	6.2 8.2

Description	Value Range	Digi-Key Part No. \$	Cut Tape Pricing				Digi-Key Part No. \$	Reel Qty.	Tape and Reel Pricing				Panasonic Part No.
			1	50	100	250			4,000	5,000	10,000	12,000	
0402, 1/8W, 5%	(.047 ~ .091Ω)	P(Value)AMCT-ND	.80	19.78	30.90	67.98	P(Value)AMTR-ND	10,000	—	—	105.00/M	—	ERJ-2BWJxxv
0402, 1/8W, 1%	(.047 ~ .091Ω)	P(Value)AJCT-ND	.88	18.17	30.02	59.25	P(Value)AJTR-ND	10,000	—	—	83.00/M	—	ERJ-2BWFxxv
0402, 1/8W, 1%	(.10 ~ .20Ω)	P(Value)AKCT-ND	.66	13.63	22.52	44.44	P(Value)AKTR-ND	10,000	—	—	63.00/M	—	ERJ-2BSJxxv
0402, 1/8W, 1%	(.22 ~ .91Ω)	P(Value)AKCT-ND	.63	13.02	21.52	42.47	P(Value)AKTR-ND	10,000	—	—	60.00/M	—	ERJ-2BQJxxv
0603, 1/10W, 5%	(.10 ~ .18Ω)	P(Value)AHCT-ND	.41	8.18	12.62	24.54	P(Value)AHTR-ND	5,000	—	28.00/M	26.00/M	—	ERJ-3RSJxxv
0603, 1/10W, 5%	(.22 ~ .82Ω)	P(Value)AHCT-ND	.28	5.41	8.23	15.28	P(Value)AHTR-ND	5,000	—	18.00/M	16.00/M	—	ERJ-3RQJxxv
0603, 1/10W, 1%	(.10 ~ .18Ω)	P(Value)AJCT-ND	.63	12.25	19.69	38.28	P(Value)AJTR-ND	5,000	—	50.00/M	48.00/M	—	ERJ-3RSFxxv
0603, 1/10W, 1%	(.22 ~ .82Ω)	P(Value)AJCT-ND	.40	7.88	12.15	23.63	P(Value)AJTR-ND	5,000	—	27.00/M	25.00/M	—	ERJ-3RQFxxv
0805, 1/4W, 5%	(.01 ~ .047Ω)	P(Value)ARCT-ND	1.04	27.62	48.34	107.03	P(Value)ARTR-ND	5,000	—	180.00/M	173.00/M	—	ERJ-6BWJxxv
0805, 1/8W, 5%	(.10 ~ .18Ω)	P(Value)BCT-ND	.77	15.87	26.22	51.75	P(Value)BTR-ND	5,000	—	75.00/M	73.00/M	—	ERJ-6RSJxxv
0805, 1/8W, 5%	(.22 ~ .91Ω)	P(Value)BCT-ND	.62	12.08	19.41	37.73	P(Value)BTR-ND	5,000	—	49.00/M	47.00/M	—	ERJ-6RQJxxv
0805, 1/4W, 1%	(.01 ~ .047Ω)	P(Value)AQCT-ND	1.04	38.61	70.96	156.53	P(Value)AQTR-ND	5,000	—	269.00/M	261.00/M	—	ERJ-6BWFxxv
0805, 1/8W, 1%	(.22 ~ .91Ω)	P(Value)DCT-ND	.56	10.85	17.44	33.91	P(Value)DTR-ND	5,000	—	44.00/M	42.00/M	—	ERJ-6RQFxxv
1206, 1/2W, 5%	(.010 ~ .100Ω)	P(Value)AVCT-ND	.95	24.31	40.06	88.40	P(Value)AVTR-ND	5,000	—	145.00/M	140.00/M	—	ERJ-8BWJxxv
1206, 1/4W, 5%	(.10 ~ .18Ω)	P(Value)PCT-ND	.85	20.88	32.63	71.78	P(Value)PTR-ND	5,000	—	116.00/M	111.00/M	—	ERJ-8RSJxxv
1206, 1/4W, 5%	(.22 ~ .91Ω)	P(Value)PCT-ND	.56	11.50	19.00	37.50	P(Value)PTR-ND	5,000	—	54.00/M	53.00/M	—	ERJ-8RQJxxv
1206, 1/2W, 1%	(.010 ~ .100Ω)	P(Value)AUCT-ND	1.24	33.16	58.03	128.50	P(Value)AUTR-ND	5,000	—	216.00/M	207.00/M	—	ERJ-8BWFxxv
1206, 1/4W, 1%	(.22 ~ .91Ω)	P(Value)RCT-ND	.57	11.79	19.48	38.44	P(Value)RTR-ND	5,000	—	55.00/M	54.00/M	—	ERJ-8RQFxxv
1210, 1/4W, 5%	(.10 ~ .18Ω)	P(Value)SCT-ND	.86	21.12	33.00	72.60	P(Value)STR-ND	5,000	—	117.00/M	112.00/M	—	ERJ-14RSJxxv
1210, 1/4W, 5%	(.22 ~ .91Ω)	P(Value)SCT-ND	.74	15.24	25.18	49.69	P(Value)STR-ND	5,000	—	72.00/M	70.00/M	—	ERJ-14RQJxxv
2010, 1/2W, 5%	(.22 ~ 1.0Ω)	P(Value)AFCT-ND	.87	21.48	33.56	73.84	P(Value)AFTR-ND	5,000	—	119.00/M	114.00/M	—	ERJ-1Z2QJxxv
2512, 1W, 5%	(.10 ~ .18Ω)	PT(Value)UTR-ND	1.09	40.50	74.43	164.18	PT(Value)UTR-ND	4,000	288.00/M	—	274.00/M	—	ERJ-1TRSJxxv
2512, 1W, 5%	(.22 ~ 9.1Ω)	PT(Value)YCT-ND	1.09	40.50	74.43	164.18	PT(Value)YCT-ND	4,000	194.00/M	—	182.00/M	—	ERJ-1TRFxxv
2512, 1W, 1%	(.22 ~ 9.1Ω)	PT(Value)YCT-ND	1.24	33.00	57.25	127.88	PT(Value)YTR-ND	4,000	219.00/M	—	206.00/M	—	ERJ-1TRFxxv