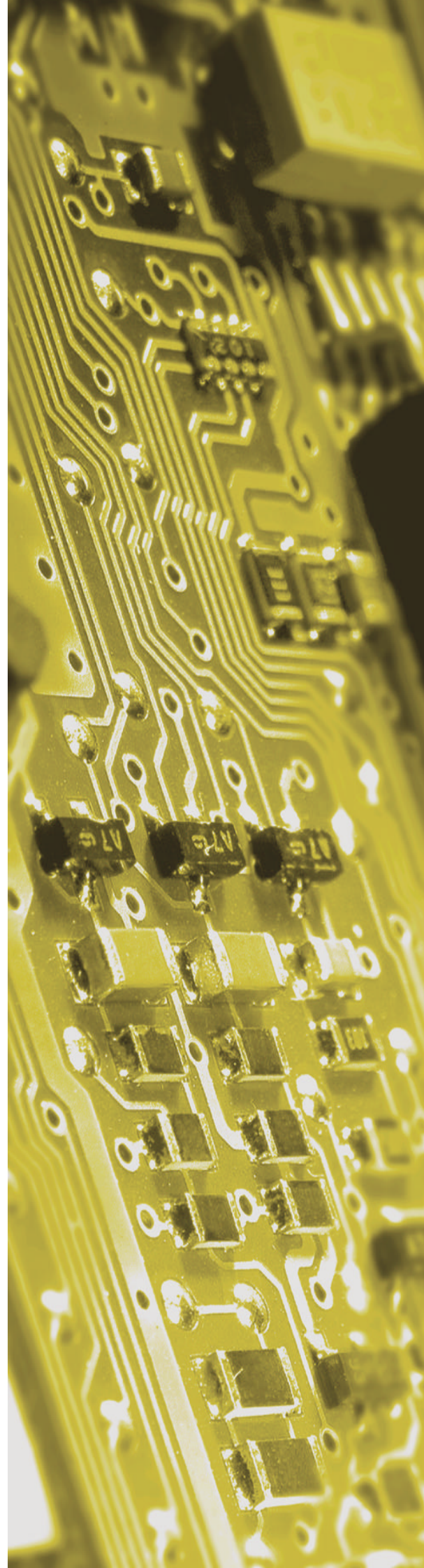


# Product Selection Tables 2005

## SMD Resistors Phycomp brand



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# Resistor chips, General purpose / Phycomp brand

General purpose, 0201 - 0805

R-Chip General purpose								
General purpose								
Size:inch(mm)	0201 (0603)		0402 (1005)		0603 (1608)		0805 (2012)	
Power rating @ 70°C	1/20W		1/16W		1/10W		1/8W	
Tolerance	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%
Resistance Range	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96
Jumper								
1 Ω								
1.5 Ω								
2.2 Ω								
3.3 Ω								
4.7 Ω								
6.8 Ω								
10 Ω								
15 Ω								
22 Ω								
33 Ω								
47 Ω								
68 Ω								
100 Ω								
150 Ω								
220 Ω								
330 Ω								
470 Ω								
680 Ω								
1 kΩ								
1.5 kΩ								
2.2 kΩ								
3.3 kΩ								
4.7 kΩ								
6.8 kΩ								
10 kΩ								
15 kΩ								
22 kΩ								
33 kΩ								
47 kΩ								
68 kΩ								
100 kΩ								
150 kΩ								
220 kΩ								
330 kΩ								
470 kΩ								
680 kΩ								
1 MΩ								
1.5 MΩ								
2.2 MΩ								
3.3 MΩ								
4.7 MΩ								
6.8 MΩ								
10 MΩ								
15 MΩ								
22 MΩ								
Remark	1.Zero Ohm Jumper<0.05 Ohm 2.22M to 100M Ohm is on request							

# Resistor chips, General purpose / Phycomp brand

## General purpose, 0201 - 0805

Ordering information - Phycomp World Wide - preferred type -								
General purpose ( Thick Film)								
Size: inch (mm)	0201 (0603)		0402 (1005)		0603 (1608)		0805 (2012)	
Power	1/20W		1/16W		1/10W		1/8W	
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96
Packing	paper tape		paper tape		paper tape		paper tape	
Quantity	5 000	---	---	---	2322 702 60...	2322 704 6....	2322 730 61...	2322 734 6....
	10 000	2322 803 70...	2322 806 7....	2322 705 70...	2322 706 7....	2322 702 70...	2322 704 7....	2322 730 71...
	20 000	---	---	---	---	2322 702 81...	2322 704 8....	2322 730 81...
	50 000	---	---	2322 705 87...	2322 706 8....	---	---	---
Jumper	5 000	---	---	---	2322 702 96001	2322 704 92006	2322 730 91002	2322 734 92006
	10 000	2322 803 91001	---	2322 705 91001	---	2322 702 97001	2322 704 92007	2322 730 91003
	20 000	---	---	---	---	2322 702 92002	---	2322 730 92002
	50 000	---	---	2322 705 91007	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -								
General purpose ( Thick Film)								
Size: inch (mm)	0201 (0603)		0402 (1005)		0603 (1608)		0805 (2012)	
Power	1/20W		1/16W		1/10W		1/8W	
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96
Packing	paper tape		paper tape		paper tape		paper tape	
Quantity	5 000	---	---	---	9C06031A.....J.HFT	9C06031A....F.HFT	9C08052A.....J.HFT	9C08052A....F.HFT
	10 000	9C02017A.....J.HF3	9C02017A....F.HF3	9C04021A.....J.HF3	9C04021A....F.HF3	9C06031A.....J.HF3	9C06031A....F.HF3	9C08052A.....J.HF3
	20 000	---	---	---	---	9C06031A.....J.HF4	9C06031A....F.HF4	9C08052A.....J.HF4
	50 000	---	---	9C04021A.....J.HF7	9C04021A....F.HF7	---	---	---
Jumper	5 000	---	---	---	9C06031A0R00--HFT	9C06031A0R00--HFT	9C08052A0R00--HFT	9C08052A0R00--HFT
	10 000	9C02017A0R00--HF3	---	9C04021A0R00--HF3	---	9C06031A0R00--HF3	9C06031A0R00--HF3	9C08052A0R00--HF3
	20 000	---	---	---	---	9C06031A0R00--HF4	---	9C08052A0R00--HF4
	50 000	---	---	9C04021A0R00--HF7	---	---	---	---

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, General purpose / Phycomp brand

General purpose, 1206 - 2512

R-Chip General purpose										
General purpose										
Size:inch(mm)	1206 (3216)		1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)	
Power rating @ 70°C	1/4W		1/2W		1W		3/4W		1W	
Tolerance	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%
Resistance Range	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96
Jumper										
1 Ω										
1.5 Ω										
2.2 Ω										
3.3 Ω										
4.7 Ω										
6.8 Ω										
10 Ω										
15 Ω										
22 Ω										
33 Ω										
47 Ω										
68 Ω										
100 Ω										
150 Ω										
220 Ω										
330 Ω										
470 Ω										
680 Ω										
1 kΩ										
1.5 kΩ										
2.2 kΩ										
3.3 kΩ										
4.7 kΩ										
6.8 kΩ										
10 kΩ										
15 kΩ										
22 kΩ										
33 kΩ										
47 kΩ										
68 kΩ										
100 kΩ										
150 kΩ										
220 kΩ										
330 kΩ										
470 kΩ										
680 kΩ										
1 MΩ										
1.5 MΩ										
2.2 MΩ										
3.3 MΩ										
4.7 MΩ										
6.8 MΩ										
10 MΩ										
15 MΩ										
22 MΩ										
Remark	1.Zero Ohm Jumper<0.05 Ohm 2.22M to 100M Ohm is on request									

# Resistor chips, General purpose / Phycomp brand

## General purpose, 1206 - 2512

Ordering information - Phycomp World Wide - preferred type -										
General purpose ( Thick Film)										
Size: inch (mm)	1206 (3216)		1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)	
Power	1/4W		1/2W		1W		3/4W		1W	
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	5%	1%
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96
Packing	paper tape		paper tape		paper tape		paper tape		paper tape	
Quantity	4 000	---	---	---	---	---	2322 760 60...	2322 761 6...	2322 762 60...	2322 763 6...
	5 000	2322 711 61...	2322 724 6...	2390 735 70...	2390 735 3...	2322 735 60...	2322 735 2...	---	---	---
	10 000	2322 711 51...	2322 724 7...	---	---	---	---	---	---	---
	20 000	2322 711 81...	2322 724 8...	---	---	---	---	---	---	---
Jumper	4 000	---	---	---	---	---	2322 760 90003	---	2322 762 90000	---
	5 000	2322 711 91032	---	2390 735 90001	---	2322 735 90006	---	---	---	---
	10 000	2322 711 91005	---	---	---	---	---	---	---	---
	20 000	2322 711 92004	---	---	---	---	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -											
General purpose ( Thick Film)											
Size: inch (mm)	1206 (3216)		1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)		
Power	1/4W		1/2W		1W		3/4W		1W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	5%	1%	
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	
Packing	paper tape		paper tape		blister tape		blister tape		blister tape		
Quantity	4 000	---	---	---	---	---	9C201012...J.HF5	9C201012...F.HF5	---	---	
	5 000	9C12063A...J.HFT	9C12063A...F.HFT	9C12105A...J.HFT	9C12105A...F.HFT	9C12181W...J.HF6	9C12181W...F.HF6	---	---	9C25121W...J.HF5	9C25121W...F.HF5
	10 000	9C12063A...J.HF3	9C12063A...F.HF3	---	---	---	---	---	---	---	---
	20 000	9C12063A...J.HF4	9C12063A...F.HF4	---	---	---	---	---	---	---	---
Jumper	4 000	---	---	---	---	---	9C2010120R00..HF5	---	9C25121W0R00..HF5	---	
	5 000	9C12063A0R00-HFT	---	9C12105A0R00..HFT	---	9C12181W0R00..HF6	---	---	---	---	
	10 000	9C12063A0R00-HF3	---	---	---	---	---	---	---	---	
	20 000	9C12063A0R00-HF4	---	---	---	---	---	---	---	---	

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, High precision - high stability / Phycomp brand

High precision - high stability, 0402 - 0603

R-Chip High precision - high stability								
High precision - high stability								
Size:inch(mm)	0402 (1005)				0603 (1608)			
Operation Mode	Precision	Standard	Power		Precision	Standard	Power	
Power rating @ 70°C	1/64W	1/16W	1/10W		1/32W	1/10W	1/8W	
Operating Temp range (°C)	-10 to+85	-55 to+125	-55 to+155		-10 to+85	-55 to+125	-55 to+155	
Tolerance	+ -1%	+ -0.5%	+ -0.25%	+ -0.1%	+ -1%	+ -0.5%	+ -0.25%	+ -0.1%
Resistance Range	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96
3 Ω								
3.3 Ω								
4.7 Ω								
6.8 Ω								
10 Ω								
15 Ω								
22 Ω								
33 Ω								
47 Ω								
68 Ω								
100 Ω								
150 Ω								
220 Ω								
330 Ω								
470 Ω								
680 Ω								
1 kΩ								
1.5 kΩ								
2.2 kΩ								
3.3 kΩ								
4.7 kΩ								
6.8 kΩ								
10 kΩ								
15 kΩ								
22 kΩ								
33 kΩ								
47 kΩ								
68 kΩ								
100 kΩ								
150 kΩ								
220 kΩ								
330 kΩ								
470 kΩ								
680 kΩ								
Remark	Resistance range is lower to 1 Ohm and upper to 2M Ohm(depend on size) on request							

Note: Value in "Resistance" means the minimum one.

Note: Resistance E192; special value on request

Note: TCR=±10ppm/°C; ±15ppm/°C on Request

Note: Tolerance=±0.01%; ±0.05% on Request

# Resistor chips, High precision - high stability / Phycomp brand

High precision - high stability, 0402 - 0603

Ordering information - Phycomp World Wide - preferred type -								
High Precision - High Stability								
Size: inch (mm)	0402 (1005)				0603 (1608)			
Power	1/16W				1/10W			
Tolerance	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%
Resistance	E24/E96				E24/E96			
Packing	paper tape				paper tape			
Quantity TC25 5 000	---	---	---	---	2390 604 7....	2390 604 6....	2390 604 5....	2390 604 4....
TC50 5 000	---	---	---	---	2390 404 7....	2390 404 6....	2390 404 5....	2390 404 4....
TC25 10 000	2390 607 7....	2390 607 6....	2390 607 5....	2390 607 4....	---	---	---	---
TC50 10 000	2390 407 7....	2390 407 6....	2390 407 5....	2390 407 4....	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -								
High Precision - High Stability								
Size: inch (mm)	0402 (1005)				0603 (1608)			
Power	1/16W				1/10W			
Tolerance	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%
Resistance	E24/E96				E24/E96			
Packing	paper tape				paper tape			
Quantity TC25 5 000	---	---	---	---	9T06034A...FAHFT	9T06034A...DAHFT	9T06034A...CAHFT	9T06034A...BAHFT
TC50 5 000	---	---	---	---	9T06034A...FBHFT	9T06034A...DBHFT	9T06034A...CBHFT	9T06034A...BBHFT
TC25 10 000	9T04021A...FAHF3	9T04021A...DAHf3	9T04021A...CAHF3	9T04021A...BAHF3	---	---	---	---
TC50 10 000	9T04021A...FBHF3	9T04021A...DBHF3	9T04021A...CBHF3	9T04021A...BBHF3	---	---	---	---

Note: For lead free terminations, please replace "HF" with "PF".



# Resistor chips, High precision - high stability / Phycomp brand

High precision - high stability, 0805 - 1210

R-Chip High precision - high stability												
High precision - high stability												
Size:inch(mm)	0805 (2012)				1206 (3216)				1210 (3225)			
Operation Mode	Precision	Standard	Power		Precision	Standard	Power		Precision	Standard	Power	
Power rating @ 70°C	1/20W	1/8W	1/5W		1/10W	1/8W	1/4W		1/8W	1/4W	2/5W	
Operating Temp range (°C)	-10 to+85	-55 to+125	-55 to+155		-10 to+85	-55 to+125	-55 to+155		-10 to+85	-55 to+125	-55 to+155	
Tolerance	+ -1%	+ -0.5%	+ -0.25%	+ -0.1%	+ -1%	+ -0.5%	+ -0.25%	+ -0.1%	+ -1%	+ -0.5%	+ -0.25%	+ -0.1%
Resistance Range	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96	E24/E96
1 Ω												
1.5 Ω												
2.2 Ω												
3.3 Ω												
4.7 Ω												
6.8 Ω												
10 Ω												
15 Ω												
22 Ω												
33 Ω												
47 Ω												
68 Ω												
100 Ω												
150 Ω												
220 Ω												
330 Ω												
470 Ω												
680 Ω												
1 kΩ												
1.5 kΩ												
2.2 kΩ												
3.3 kΩ												
4.7 kΩ												
6.8 kΩ												
10 kΩ												
15 kΩ												
22 kΩ												
33 kΩ												
47 kΩ												
68 kΩ												
100 kΩ												
150 kΩ												
220 kΩ												
330 kΩ												
470 kΩ												
680 kΩ												
1 MΩ												
1.5 MΩ												
Remark	1. Jumper; Resistance E192; special value on request 2. TCR=±10ppm/°C; ±15ppm/°C on Request 3.Tolerance=±0.01%; ±0.05% on Request 4. Power mode RT0805, 1206 on request											

# Resistor chips, High precision - high stability / Phycomp brand

High precision - high stability, 0805 - 1210

Ordering information - Phycomp World Wide - preferred type -												
High Precision - High Stability												
Size: inch (mm)	0805 (2012)				1206 (3216)				1210 (3225)			
Power	1/8W				1/4W				1/2W			
Tolerance	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%
Resistance	E24/E96				E24/E96				E24/E96			
Packing	paper tape				paper tape				paper tape			
Quantity <b>TC25</b> 5 000	2390 601 7....	2390 601 6....	2390 601 5....	2390 601 4....	2390 611 7....	2390 611 6....	2390 611 5....	2390 611 4....	2390 612 7....	2390 612 6....	2390 612 5....	2390 612 4....
<b>TC50</b> 5 000	2390 401 7....	2390 401 6....	2390 401 5....	2390 401 4....	2390 411 7....	2390 411 6....	2390 411 5....	2390 411 4....	2390 412 7....	2390 412 6....	2390 412 5....	2390 512 4....

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -													
High Precision - High Stability													
Size: inch (mm)	0805 (2012)				1206 (3216)				1210 (3225)				
Power	1/8W				1/4W				1/2W				
Tolerance	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%	±1%	±0.5%	±0.25%	±0.1%	
Resistance	E24/E96				E24/E96				E24/E96				
Packing	paper tape				paper tape				paper tape				
Quantity <b>TC25</b> 5 000	9T08052A...FAHFT	9T08052A...DAHFT	9T08052A...CAHFT	9T08052A...BAHFT	9T12062A...FAHFT	9T12062A...DAHFT	9T12062A...CAHFT	9T12062A...BAHFT	9T12103A...FAHFT	9T12103A...DAHFT	9T12103A...CAHFT	9T12103A...BAHFT	
<b>TC50</b> 5 000	9T08052A...FBHFT	9T08052A...DBHFT	9T08052A...CBHFT	9T08052A...BBHFT	9T12062A...FBHFT	9T12062A...DBHFT	9T12062A...CBHFT	9T12062A...BBHFT	9T12103A...FBHFT	9T12103A...DBHFT	9T12103A...CBHFT	9T12103A...BBHFT	

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, Low ohmic / Phycomp brand

Low ohmic, 0402 - 1206

R-Chip Low Ohmic								
Low Ohmic								
Size:inch(mm)	0402 (1005)		0603 (1608)		0805 (2012)		1206 (3216)	
Power rating @ 70°C	1/16W		1/10W		1/8W (1/4W)		1/4W (1/2W)	
Tolerance	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%
Resistance Range	E24	E24	E24	E24	E24	E24	E24	E24
0.01 Ω								
0.011 Ω								
0.012 Ω								
0.013 Ω								
0.015 Ω								
0.016 Ω								
0.018 Ω								
0.02 Ω								
0.022 Ω								
0.024 Ω								
0.027 Ω								
0.03 Ω								
0.033 Ω								
0.036 Ω								
0.039 Ω								
0.043 Ω								
0.047 Ω								
0.051 Ω								
0.056 Ω								
0.062 Ω								
0.068 Ω								
0.075 Ω								
0.082 Ω								
0.091 Ω								
0.1 Ω								
0.11 Ω								
0.12 Ω								
0.13 Ω								
0.15 Ω								
0.16 Ω								
0.18 Ω								
0.2 Ω								
0.22 Ω								
0.24 Ω								
0.27 Ω								
0.3 Ω								
0.33 Ω								
0.36 Ω								
0.39 Ω								
0.43 Ω								
0.47 Ω								
0.51 Ω								
0.56 Ω								
0.62 Ω								
0.68 Ω								
0.75 Ω								
0.82 Ω								
0.91 Ω								
Remark	1.50mOhm ~ 100mOhm on request for 0402 2.E48/E96 on request							

# Resistor chips, Low ohmic / Phycomp brand

## Low ohmic, 0402 - 1206

Ordering information - Phycomp World Wide - preferred type -									
Low Ohmic									
Size: inch (mm)	0402 (1005)		0603 (1608)		0805 (2012)		1206 (3216)		
Power	1/16W		1/10W		1/8W		1/4W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	
Resistance	E24	E24	E24	E24	E24	E24	E24	E24	
Packing	paper tape		paper tape		paper tape		paper tape		
Quantity	5 000	---	---	2350 512 10...	2350 512 12...	2350 511 10...	2350 511 12...	2350 510 10...	2350 510 12...
	10 000	2350 513 20...	2351 513 22...	---	---	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -									
Low Ohmic									
Size: inch (mm)	0402 (1005)		0603 (1608)		0805 (2012)		1206 (3216)		
Power	1/16W		1/10W		1/8W		1/4W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	
Resistance	E24	E24	E24	E24	E24	E24	E24	E24	
Packing	paper tape		paper tape		paper tape		paper tape		
Quantity	5 000	---	---	9C06031A....J.HFT	9C06031A....F.HFT	9C08052A....J.HFT	9C08052A....F.HFT	9C12063A....J.HFT	9C12063A....F.HFT
	10 000	9C04021A....J.HFT	9C04021A....F.HFT	---	---	---	---	---	---

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, Low ohmic / Phycomp brand

Low ohmic, 2010 - 2512

R-Chip Low Ohmic								
Low Ohmic								
Size:inch(mm)	1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)	
Power rating @ 70°C	1/2W		1W		3/4W		1W	
Tolerance	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%
Resistance Range	E24	E24	E24	E24	E24	E24	E24	E24
0.01 Ω								
0.015 Ω								
0.022 Ω								
0.033 Ω								
0.047 Ω								
0.068 Ω								
0.1 Ω								
0.15 Ω								
0.22 Ω								
0.33 Ω								
0.47 Ω								
0.68 Ω								
Remark	E48/E96 on request							

# Resistor chips, Low ohmic / Phycomp brand

Low ohmic, 2010 - 2512

Ordering information - Phycomp World Wide - preferred type -									
Low Ohmic									
Size: inch (mm)	1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)		
Power	1/2W		1W		3/4W		1W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	
Resistance	E24	E24	E24	E24	E24	E24	E24	E24	
Packing	paper tape		blister tape		blister tape		blister tape		
Quantity	5 000	---	---	---	---	2322 760 90..0/60..7	2322 761 90..0/60..7	2322 762 90..0/60..7	2322 763 90..0/60..7
	10 000	2390 735 90..0/60..7	2390 735 3...0	2322 735 60...	2322 735 2...	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -									
Low Ohmic									
Size: inch (mm)	1210 (3225)		1218 (3248)		2010 (5025)		2512 (6432)		
Power	1/2W		1W		3/4W		1W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	
Resistance	E24	E24	E24	E24	E24	E24	E24	E24	
Packing	paper tape		blister tape		blister tape		blister tape		
Quantity	5 000	---	---	---	---	9C201012....F.HF5	9C201012....J.HF5	9C25121W....J.HF5	9C25121W....F.HF5
	10 000	9C12105A....J.HFT	9C12105A....F.HFT	9C12181W....J.HF6	9C12181W....F.HF6	---	---	---	---

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, Arrays / Phycomp brand

## Arrays, convex and concave

R-Chip Arrays									
Arrays									
Size:inch(mm)	2 x 0402 (1 x 1 mm)		4 x 0402 (2 x 1 mm)		8 x 0402 (4.0 x 1.6 mm)		4 x 0603 (3.2 x 1.6 mm)		
Power rating @ 70°C	1/16W		1/16W		1/16W		1/16W		
Tolerance	+5%	+1%	+5%	+1%	+5%	+1%	+5%	+1%	+5%
Type	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (convex)	R-Array/R- Network (concave)
Resistance Range	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24
Jumper									
10 Ω									
15 Ω									
22 Ω									
33 Ω									
47 Ω									
68 Ω									
100 Ω									
150 Ω									
220 Ω									
330 Ω									
470 Ω									
680 Ω									
1 kΩ									
1.5 kΩ									
2.2 kΩ									
3.3 kΩ									
4.7 kΩ									
6.8 kΩ									
10 kΩ									
15 kΩ									
22 kΩ									
33 kΩ									
47 kΩ									
68 kΩ									
100 kΩ									
150 kΩ									
220 kΩ									
330 kΩ									
470 kΩ									
680 kΩ									
1 MΩ									
Remark									

Note: Zero Ohm Jumper<0.05 Ohm

Note: Value in "Resistance" means the minimum one.

Note: 4\*0603 (Concave) 1% is on request

# Resistor chips, Arrays / Phycomp brand

## Arrays, convex and concave

Ordering information - Phycomp World Wide - preferred type -									
Arrays									
Size: inch (mm)	2 x 0402 (1 x 1 mm)		4 x 0402 (2 x 1 mm)		8 x 0402 (4.0 x 1.6 mm)		4 x 0603 (3.2 x 1.3 mm)		
Power	1/16W		1/16W		1/16W		1/16W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	5%
Type	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (concave)
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24
Packing	paper tape		paper tape		paper tape		paper tape		
Quantity	5 000	---	---	---	2350 053 11...	2350 043 1...	2350 035 10...	2350 025 1....	2350 034 10...
	10 000	2350 013 11...	2350 013 2...	2350 033 11...	2350 023 2....	---	---	---	---
Jumper	5 000	---	---	---	2350 053 91001	---	2350 035 91001	---	2350 034 91001
	10 000	2350 013 91001	---	2350 033 91001	---	---	---	---	---

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -									
Arrays									
Size: inch (mm)	2 x 0402 (1 x 1 mm)		4 x 0402 (2 x 1 mm)		8 x 0402 (4.0 x 1.6 mm)		4 x 0603 (3.2 x 1.3 mm)		
Power	1/16W		1/16W		1/16W		1/16W		
Tolerance	5%	1%	5%	1%	5%	1%	5%	1%	5%
Type	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (convex)	R-Arry/R-Network (concave)
Resistance	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24	E24/E96	E24
Packing	paper tape		paper tape		paper tape		paper tape		
Quantity	5 000	---	---	---	9CAV281A...JLHFT	9CAV281A...FLHFT	9CAV341A...JLHFT	9CAV341A...FKHFT	9CAC341A...JLHFT
	10 000	9CAV221A...JLHF3	9CAV221A...FKHF3	9CAV241A...JMHF3	9CAV241A...FMHF3	---	---	---	---
Jumper	5 000	---	---	---	9CAV281AOR00-HFT	---	9CAV341AOR00-HFT	---	9CAC341AOR00-HFT
	10 000	9CAV221AOR00-HF3	---	9CAV241AOR00-HF3	---	---	---	---	---

Note: For lead free terminations, please replace "HF" with "PF".



R-Chip Network	
Network	
Size:inch(mm)	0612 (1632)
Power rating @ 70°C	1/32W
Tolerance	+5%
Type	T-Type 10 Pin PIN 5 and PIN 10 no resistance
Resistance Range	E24
	10 Ω
	15 Ω
	22 Ω
	33 Ω
	47 Ω
	68 Ω
	100 Ω
	150 Ω
	220 Ω
	330 Ω
	470 Ω
	680 Ω
	1 kΩ
	1.5 kΩ
	2.2 kΩ
	3.3 kΩ
	4.7 kΩ
	6.8 kΩ
	10 kΩ
	15 kΩ
	22 kΩ
	33 kΩ
	47 kΩ
	68 kΩ
	100 kΩ
Remark	8R-Network, Convex terminations

Note: Zero Ohm Jumper<0.05 hm

Note: Value in "Resistance" means the minimum one.

Ordering information - Phycomp World Wide - preferred type -	
Network	
Size: inch (mm)	<b>0612 (1632)</b>
Power	1/32W
Tolerance	5%
Type	T-Type 10 pin PIN 5 and PIN 10 no resistance
Resistance	E24
Packing	paper tape
Quantity 5 000	2350 230 10...
Jumper 5 000	2350 230 91001

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -	
Network	
Size: inch (mm)	<b>0612 (1632)</b>
Power	1/32W
Tolerance	5%
Type	T-Type 10 pin PIN 5 and PIN 10 no resistance
Resistance	E24
Packing	paper tape
Quantity 5 000	9CRN318A....JLHFT
Jumper 5 000	9CRN318A0R00--HFT

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, Application specific / Phycomp brand

## NiAu terminations, 0603 and 1206

R-Chip NiAu terminations				
NiAu terminations				
Size:inch(mm)	0603 (1608)		1206 (3216)	
Power rating @ 70°C	1/10W		1/4W	
Tolerance	+5%	+1%	+5%	+1%
Resistance Range	E24	E24/E96	E24	E24/E96
Jumper				
1 Ω				
1.5 Ω				
2.2 Ω				
3.3 Ω				
4.7 Ω				
6.8 Ω				
10 Ω				
15 Ω				
22 Ω				
33 Ω				
47 Ω				
68 Ω				
100 Ω				
150 Ω				
220 Ω				
330 Ω				
470 Ω				
680 Ω				
1 kΩ				
1.5 kΩ				
2.2 kΩ				
3.3 kΩ				
4.7 kΩ				
6.8 kΩ				
10 kΩ				
15 kΩ				
22 kΩ				
33 kΩ				
47 kΩ				
68 kΩ				
100 kΩ				
150 kΩ				
220 kΩ				
330 kΩ				
470 kΩ				
680 kΩ				
1 MΩ				
1.5 MΩ				
2.2 MΩ				
3.3 MΩ				
4.7 MΩ				
6.8 MΩ				
10 MΩ				
Remark				

Note: Zero Ohm Jumper<0.05 Ohm

Note: Value in "Resistance" means the minimum one.

# Resistor chips, Application specific / Phycomp brand

NiAu terminations, 0603 and 1206

Ordering information - Phycomp World Wide - preferred type -				
NiAu terminations				
Size: inch (mm)	0603 (1608)		1206 (3216)	
Power	1/10W		1/4W	
Tolerance	5%	1%	5%	1%
Resistance	E24	E24/E96	E24	E24/E96
Packing	paper tape		paper tape	
Quantity	5 000	2322 702 11...	2322 704 1....	2322 711 11...
	10 000	2322 702 12...	2322 704 2....	2322 711 12...
			2322 729 1....	2322 729 2....

Ordering information - Phycomp North America - preferred type -				
NiAu terminations				
Size: inch (mm)	0603 (1608)		1206 (3216)	
Power	1/10W		1/4W	
Tolerance	5%	1%	5%	1%
Resistance	E24	E24/E96	E24	E24/E96
Packing	paper tape		paper tape	
Quantity	5 000	9C06031A....J.AFT	9C06031A....F.AFT	9C12063A....J.AFT
	10 000	9C06031A....J.AF3	9C06031A....F.AF3	9C12063A....F.AF3

# Resistor chips, Application specific / Phycomp brand

## Surge/Fusible

R-Chip Surge/Fusible			
	Surge Chip Resistor	Fusible Chip Resistor	
Size:inch(mm)	1206 (3216)	0603 (1608)	1206 (3216)
Power rating @ 70°C	1/4W	1/10W	1/4W
Tolerance	+ -5%	+ -5%	+ -5%
Resistance Range	E24	E24	E24
1 Ω			
1.5 Ω			
2.2 Ω			
3.3 Ω			
4.7 Ω			
6.8 Ω			
10 Ω			
15 Ω			
22 Ω			
33 Ω			
47 Ω			
68 Ω			
100 Ω			
150 Ω			
220 Ω			
330 Ω			
470 Ω			
680 Ω			
1 kΩ			
1.5 kΩ			
2.2 kΩ			
3.3 kΩ			
4.7 kΩ			
6.8 kΩ			
10 kΩ			
15 kΩ			
22 kΩ			
33 kΩ			
47 kΩ			
68 kΩ			
100 kΩ			
Remark	Value in "Resistance" means the minimum one.		

# Resistor chips, Application specific / Phycomp brand

## Surge/Fusible

Ordering information - Phycomp World Wide - preferred type -			
Size: inch (mm)	Surge Chip Resistor	Fusible Chip Resistor	
Power	<b>1206 (3216)</b>	<b>0603 (1608)</b>	<b>1206 (3216)</b>
Tolerance	1/4W	1/10W	1/4W
Type	5%	5%	5%
Resistance	E24	E24	E24
Packing	paper tape	paper tape	paper tape
Quantity 5 000	2350 550 10...	2350 756 60...	2350 750 6....

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -			
Size: inch (mm)	Surge Chip Resistor	Fusible Chip Resistor	
Power	<b>1206 (3216)</b>	<b>0603 (1608)</b>	<b>1206 (3216)</b>
Tolerance	1/4W	1/10W	1/4W
Type	5%	5%	5%
Resistance	E24	E24	E24
Packing	paper tape	paper tape	paper tape
Quantity 5 000	9CSR013A....JLHFT	9CFR211A....J.HFT	9CFR013A....J.HFT

Note: For lead free terminations, please replace "HF" with "PF".

# Resistor chips, Application specific / Phycomp brand

High voltage, 0805 - 2512

R-Chip High Voltage					
High Voltage					
Size:inch(mm)	0805 (2012)		1206 (3216)		2512 (6432)
Working Voltage	300V		400V		250V
Power rating @ 70°C	1/8W		1/4W		1W
Tolerance	+5%	+1%	+5%	+1%	+5%
Resistance Range	E24	E24/E96	E24	E24/E96	E24
100 kΩ					
150 kΩ					
220 kΩ					
330 kΩ					
470 kΩ					
680 kΩ					
1 MΩ					
1.5 MΩ					
2.2 MΩ					
3.3 MΩ					
4.7 MΩ					
6.8 MΩ					
10 MΩ					
15 MΩ					
22 MΩ					
Remark	Max. overload voltage 800V for 1 min		Max. overload voltage 800V for 1 min		Max. overload voltage 2500V for 1 min

Note: Value in "Resistance" means the minimum one.

# Resistor chips, Application specific / Phycomp brand

High voltage, 0805 - 2512

Ordering information - Phycomp World Wide - preferred type -					
High Voltage					
Size: inch (mm)	0805 (2012)		1206 (3216)		2512 (6432)
Power	1/8W		1/4W		1W
Tolerance	5%	1%	5%	1%	5%
Resistance	E24	E24/E96	E24	E24/E96	E24
Packing	paper tape		paper tape		blister tape
Quantity	4 000	---	---	---	2322 762 98...
	5 000	2322 792 61...	2322 793 6....	2322 790 61...	2322 791 6....

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -					
High Voltage					
Size: inch (mm)	0805 (2012)		1206 (3216)		2512 (6432)
Power	1/8W		1/4W		1W
Tolerance		5% 1%		5% 1%	5%
Resistance	E24	E24/E96	E24	E24/E96	E24
Packing	paper tape		paper tape		blister tape
Quantity	4 000	---	---	---	9CVR211W....JLHF5
	5 000	9CVR112A....JMHFT	9CVR122A....FMHFT	9CVR013A....JMHFT	9CVR023A....FMHFT

Note: For lead free terminations, please replace "HF" with "PF".



# Resistor chips, Application specific / Phycomp brand

Trimable, 0603 - 1206

R-Chip Trimable						
Trimable						
Size:inch(mm)	0603 (1608)		0805 (2012)		1206 (3216)	
Power rating @ 70°C	1/16W		1/8W		1/4W	
Tolerance	0/-20% (Trimable)	0/-30% (Trimable)	0/-20% (Trimable)	0/-30% (Trimable)	0/-20% (Trimable)	0/-30% (Trimable)
Resistance Range	E24	E24	E24	E24	E24	E24
1 Ω						
1.5 Ω						
2.2 Ω						
3.3 Ω						
4.7 Ω						
6.8 Ω						
10 Ω						
15 Ω						
22 Ω						
33 Ω						
47 Ω						
68 Ω						
100 Ω						
150 Ω						
220 Ω						
330 Ω						
470 Ω						
680 Ω						
1 kΩ						
1.5 kΩ						
2.2 kΩ						
3.3 kΩ						
4.7 kΩ						
6.8 kΩ						
10 kΩ						
15 kΩ						
22 kΩ						
33 kΩ						
47 kΩ						
68 kΩ						
100 kΩ						
150 kΩ						
220 kΩ						
330 kΩ						
470 kΩ						
680 kΩ						
1 MΩ						
1.5 MΩ						
2.2 MΩ						
3.3 MΩ						
4.7 MΩ						
6.8 MΩ						
10 MΩ						
Remark						

Note: Value in "Resistance" means the minimum one.

# Resistor chips, Application specific / Phycomp brand

Trimable, 0603 - 1206

Ordering information - Phycomp World Wide - preferred type -			
Trimable			
Size: inch (mm)	0603 (1608)	0805 (2012)	1206(3216)
Power	1/10W	1/8W	1/4W
Resistance	E24	E24	E24
Packing	paper tape	paper tape	paper tape
Quantity 5 000 0/-20%	2350 502 11...	2350 501 11...	2350 500 11....
5 000 0/-30%	2350 502 10...	2350 511 10...	2350 500 10....
Europe 5 000	on request	2322 734 94...	2322 724 94....

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -			
Trimable			
Size: inch (mm)	0603 (1608)	0805 (2012)	1206(3216)
Power	1/10W	1/8W	1/4W
Resistance	E24	E24	E24
Packing	paper tape	paper tape	paper tape
Quantity 5 000 0/-20%	9C06031A....N.HFT	9C08052A....N.HFT	9C12063A....N.HFT
5 000 0/-30%	9C06031A....R.HFT	9C08052A....R.HFT	9C12063A....R.HFT

Note: For lead free terminations, please replace "HF" with "PF".

Current sensors - Low TCR		
Current sensors		
Size:inch(mm)	2512 (6432)	
Power rating @ 70°C	1W	
Tolerance	+5%	+1%
0.0010 Ω		
0.0020 Ω		
0.0030 Ω		
0.0040 Ω		
0.0050 Ω		
Remark		

Ordering information - Phycomp World Wide - preferred type -		
Metal Strip		
Size: inch (mm)	<b>2512 (6432)</b>	<b>2512 (6432)</b>
Power	1W	1W
Resistance	5%	1%
Packing	blister tape	
Quantity 4 000	2322 762 94..0	2322 763 95..0

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred type -		
Size: inch (mm)	<b>2512 (6432)</b>	<b>2512 (6432)</b>
Power	1W	1W
Resistance	5%	1%
Packing	blister tape	
Quantity 4 000	9CMR221W....J.HF5	9CMR221W....F.HF5

Note: For lead free terminations, please replace "HF" with "PF".

Attenuator	
Case size	<b>0404</b>
Attenuation range	1 dB / 20 dB
Attenuation tolerance	1 to 5 dB $\pm 0.3$ dB / $\pm 0.2$ dB
	6 to 10 dB $\pm 0.5$ dB / $\pm 0.3$ dB
	15 dB $\pm 1$ dB / $\pm 0.5$ dB
	20 dB $\pm 2$ dB / $\pm 1.0$ dB
Frequency range	1 to 10 dB DC to 2.5 GHz
	15 and 20 dB DC to 2.0 GHz
Maximum permissible voltage (V)	50
Power rating (mW)	40
Temp range (°C)	-50 to 125

Ordering information - Phycomp world wide - preferred types	
Packing	paper tape
Quantity	10 000 235070311...
Remark	for last three digits see table 12NC

Note: For lead free terminations, please add a suffix letter "L" of ordering code.

Ordering information - Phycomp North America - preferred types	
Packing	paper tape
Quantity	10 000 9CV3218Axxxxx-HF3
Remark	for xxxxx see table NA code

Note: For lead free terminations, please replace "HF" with "PF".

Attenuation						
Value (dB)	Standard			Optional		
	Tolerance (dB)	12NC	NA code	Tolerance (dB)	12NC	NA code
1	$\pm 0.3$	012	01dBC	$\pm 0.2$	011	01dBB
2	$\pm 0.3$	022	02dBC	$\pm 0.2$	021	02dBB
3	$\pm 0.3$	032	03dBC	$\pm 0.2$	031	03dBB
4	$\pm 0.3$	042	04dBC	$\pm 0.2$	041	04dBB
5	$\pm 0.3$	052	05dBC	$\pm 0.2$	051	05dBB
6	$\pm 0.5$	063	06dBD	$\pm 0.3$	062	06dBC
7	$\pm 0.5$	073	07dBD	$\pm 0.3$	072	07dBC
8	$\pm 0.5$	083	08dBD	$\pm 0.3$	082	08dBC
9	$\pm 0.5$	093	09dBD	$\pm 0.3$	092	09dBC
10	$\pm 0.5$	103	10dBD	$\pm 0.3$	102	10dBC
15	$\pm 1.0$	154	15dBF	$\pm 0.5$	153	15dBD
20	$\pm 2.0$	205	20dBG	$\pm 1.0$	204	20dBF

### Ordering information 12NC

The first 8 or 9 digits of the 12 digit catalogue number are give nunder "Ordering information - preferred types" (see datasheets).

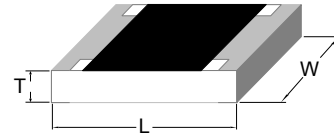
The remaining 4 or 3 digits represent the resistance value with the last digit indicating the multiplier as shown in the table.

Example:

0.02 Ω = 0200 or 200  
 0.3 Ω = 3007 or 307  
 1 Ω = 1008 or 108  
 33 kΩ = 3303 or 333  
 10 MΩ = 1006 or 106

Last digit of 12NC	
Resistance	Last digit
0.01 to 0.0976 Ω	0
0.1 to 0.976 Ω	7
1 to 9.76 Ω	8
10 to 97.6 Ω	9
100 to 976 Ω	1
1 to 9.76 kΩ	2
10 to 97.6 kΩ	3
100 to 976 kΩ	4
1 to 9.76 MΩ	5
10 to 97.6 MΩ	6

### Case size dimensions



Size code	L (mm)	W (mm)	T (mm)	Mass per 100 unit (g)
0201	0.6	0.3	0.30	0.02
0402	1.0	0.5	0.35	0.06
0603	1.6	0.8	0.45	0.19
0805	2.0	1.25	0.50	0.45
1206	3.1	1.6	0.55	0.86
1210	3.1	2.6	0.50	1.47
1218	3.0	4.6	0.55	2.70
2010	5.0	2.5	0.55	2.27
2512	6.35	3.1	0.55	3.70

### Ordering information - Clear text code(North America ONLY)

	1-2	3-6	7-8	9-12	13	14	15-16	17
	X	X	X	X	X	X	X	X
<b>Series</b>	<b>Name(code1-2)</b>							<b>Packing (code 17)</b>
9C	Phycomp Thick film chip resistors							T 5K paper
9T	Phycomp Thin film chip resistors							3 10K paper
								4 20K paper
								5 4K blister
								6 5K blister
								7 50K paper
								P 25K bulk case
								<b>Special coding (code15-16)</b>
								HF SnPb
								PF Lead Free
								AF NiAu
								<b>TCR (code 14)</b>
								C ±10 ppm/°C
								D ±15 ppm/°C
								A ±25 ppm/°C
								B ±50 ppm/°C
								K ±100 ppm/°C
								L ±200 ppm/°C
								E ±250 ppm/°C
								M ±300 ppm/°C
								G ±500 ppm/°C
								P ±750 ppm/°C
								H ±1000 ppm/°C
								I ±1500 ppm/°C
								J ±2000 ppm/°C
								N ±3000 ppm/°C
								<b>Tolerance (code 13)</b>
								E ±0.01%
								A ±0.05%
								B ±0.1%; ±0.2 dB
								C ±0.25%; ±0.3 dB
								D ±0.5%; ±0.5 dB
								F ±1%; ±1 dB
								G ±2%; ±2 dB
								J ±5%
								N 0/-20%
								R 0/-30%
								<b>Power rating (code7-8)</b>
1A	1/16 W	0.063 W	(0402)					
1A	1/10 W	0.10 W	(0603)					
2A	1/8 W	0.125 W	(0805)					
3A	1/4 W	0.25 W	(1206)					
5A	1/2 W	0.5 W	(1210)					
7A	1/20 W	0.05 W	(0201)					
8A	1/32 W	0.03125 W	(RN31)					
12	3/4 W	0.75 W	(2010)					
1W	1 W	1 W	(1218/2512)					
2W	2 W	2 W						
								<b>Resistance value (code9-12)</b>
0R00	Jumper							
R0XX	< 0.1R							
RXXX	0.1R - 0.976R							
XRXX	1R - 9.76R							
XXRX	10R - 97.6R							
XXX0	100R - 976R							
XXX1	1K - 9.76K							
XXX2	10K - 97.6K							
XXX3	100K - 976K							
XXX4	1M - 9.76M							
XXX5	10M - 97.6M							
XXX6	100M+							
XXdB	1 -20 dB							

dB values apply to Attenuators

Right values apply to trimm able resistors

Example:  
R-chip 0603, 10R0, 1%, 5K reel = 9C06031A10R0FKHFT

Sample kit data		
Phycomp order code: 3322073.....	30095	30096
Size	1206	0805
Series	E24+jumper	E24+jumper
Tolerance	5%	5%
Resistor Range	1 $\Omega$ - 10 M $\Omega$	1 $\Omega$ - 10 M $\Omega$
Resistance Values	170	170
Resistor pieces	50	50
Maximum Wattage	1/4 W	1/8 W
Temp Coeff (ppm)	$\pm$ 200	$\pm$ 200
Maximum Voltage	200	150

Sample kit data			
Phycomp order code: 3322073.....	30098	30099	30101
Size	1206	0805	0603
Series	E24+jumper	E24+jumper	E24+jumper
Tolerance	1%	1%	1%
Resistor Range	1 $\Omega$ - 10 M $\Omega$	1 $\Omega$ - 10 M $\Omega$	1 $\Omega$ - 10 M $\Omega$
Resistance Values	170	170	170
Resistor pieces	50	50	50
Maximum Wattage	1/4 W	1/8 W	1/10 W
Temp Coeff (ppm)	$\pm$ 100	$\pm$ 100	$\pm$ 100
Maximum Voltage	200	150	50

Sample kit data		
Phycomp order code: 3322073.....	30097	30106
Size	0603	0402
Series	E24+jumper	E24+jumper
Tolerance	5%	5%
Resistor Range	1 $\Omega$ - 10 M $\Omega$	10 $\Omega$ - 2M2 $\Omega$
Resistance Values	170	122
Resistor pieces	50	100
Maximum Wattage	1/10 W	1/16 W
Temp Coeff (ppm)	$\pm$ 200	$\pm$ 200
Maximum Voltage	50	50

Sample kit data		
Phycomp order code: 3322073.....	30109	30103
Size	0402	0603X4 (Concave)
Series	E24+jumper	E12+jumper
Tolerance	1%	5%
Resistor Range	10 $\Omega$ - 1 M $\Omega$	10 $\Omega$ - 1 M $\Omega$
Resistance Values	122	62
Resistor pieces	100	50
Maximum Wattage	1/16 W	1/16 W
Temp Coeff (ppm)	$\pm$ 200	$\pm$ 200
Maximum Voltage	50	50

Note: For lead free terminations, please add a suffix letter "L" of ordering code.



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