

Specification

YAGEO Type		RC 0402	RC 0603	RC 0805	RC 1206	RC 1210	RC 2010	RC 2510
VITROHM Type		512-0	513-0	503-0	502-0	507-0	508-0	509-0
Style		0402	0603	0805	1206	1210	2010	2512
Power rating P_{70}	W	0,063	0,10	0,125	0,25	0,33	0,50	1,0
E-series		see Page 2						
Resistance range	Ω	see Page 2						
Tolerance	%	see Page 2						
Temperature coefficient	10^{-6} K^{-1}	see Page 2						
max. cont. working voltage	V_{RMS}	50	50	150	200	200	200	200
Voltage coefficient	10^{-6} V^{-1}	< 50	< 30	< 30	< 30	< 30	< 30	< 30
Insulation voltage (1Min.)	V_{RMS}	100	100	300	500	500	500	500
Insulation resistance	Ω	> 10^4 M						
Derating	$^{\circ}\text{C}$	linear 70 ... 125 /0W (155 /0W)* ¹						
Climatic category		55/125/56						
Temperature range	$^{\circ}\text{C}$	- 55 ... + 125						
Thermal resistance	KW^{-1}	880	550	440	220	165	110	55
Failure rate (Total, ϑ_0 max., 60% conf. lev.)	10^{-9} h^{-1}	100	50	10	1	1	1	1
Endurance (P_{70} , @70°C, 1000h, intm.)	$\left[\frac{\Delta R}{R} \right] \%$	± 1,0	± 1,0	± 1,0	± 1,0	± 1,0	± 1,0	± 1,0
Damp heat, steady state (40°C, 93% r.h., 56d)	$\left[\frac{\Delta R}{R} \right] \%$	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5
Resistance to soldering heat (10s, 260°C)	$\left[\frac{\Delta R}{R} \right] \%$	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5

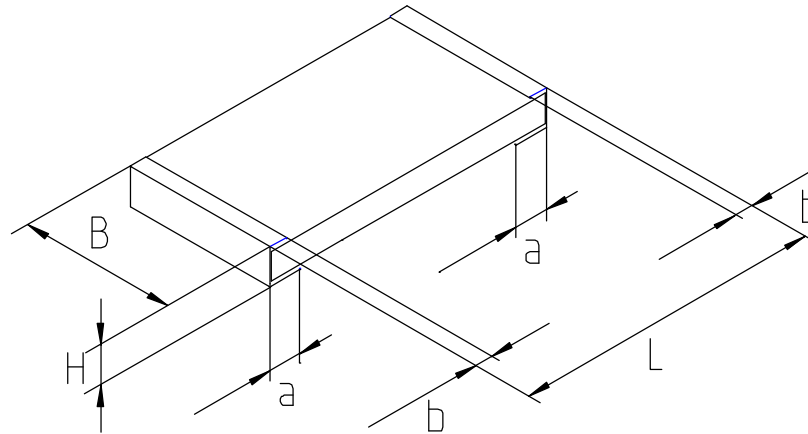
Type		RC 0402	RC 0603	RC 0805	RC 1206	RC 1210	RC 2010	RC 2512
Terminal strength		Board-bend test IEC 60068-2-21; 10x2mm						
Solderability		Solder-bath test IEC 61760-1; 95% wetting						
Current noise (DIN/IEC 195)	dB	-6 +10 / Decade; depends on style						
Nonlinearity (DIN/IEC 440)	dB	80 - 10 Decade; depends on style						
Current rating (0R0) Jumper	A	1,0	1,0	2,0	2,0	2,0	2,0	2,0
Taping		acc. IEC 60286-3						
Marking		see table						
Accordinging Standard		CECC 40401-802						

Type	Vitrohm Type	Tolerance	Marking
RC 0402	512-0		no Marking
RC 0603	513-0 (E 96)	1%	EIA 96
RC 0603	513-0 (E 24)	1%	MIL-Code, 3 digits, if not part of E 96-Series
RC 1206/RC 0805/RC 1210/RC 2010/RC 2512	502-0/503-0/507-0/508-0/509-0	1%	Mil-Code, 4 digits
RC 1206/ RC 0805/RC 0603/RC 1210/RC 2010/RC 2512	502-0/503-0/513-0/507-0/508-0/509-0	5%	Mil-Code, 3 digits

Tolerance	TC	E-Series	RC 0402 512-0	RC 0603 513-0	RC 0805 503-0	RC 1206 502-0	RC 1210 507-0	RC 2010 508-0	RC 2512 509-0
5%	TC 500	E24	2R2...9R1	--	--	--	--	--	--
5%	TC 250	E 24	--	1R0...9R1	1R0...9R1	1R0...9R1	--	--	--
5%	TC 200	E 24	10R...3M3	10R...10M	10R...10M	10R...10M	1R0...10M	1R0...10M	1R0...10M
1%	TC 250	E 24	--	1R0...9R1	1R0...9R1	1R0...9R1	--	--	--
1%	TC 100	E 24/E 96	47R...2M2	10R...1M0	10R0...1M0	10R0...1M0	10R...1M0	10R...1M0	10R...1M0
1%	TC 200	E 24	--	--	1M1...10M	1M1...10M	--	--	--
1%	TC 50	E 24/E 96	--	100R...1M0	100R...1M0	100R...1M0	--	--	--
0,5%	TC 100	E 24/E 96	--	--	--	100R...511K	--	--	--
± 10% or - 30% untrimmed		E 24	--	--	1R0...1M0	1R0...1M0	--	--	--
0R0 (Jumper)			max. 50mΩ						

Higher and lower values on request

Dimensions in mm:



Type	Vitrohm Type	L	B	H	a	b
RC 0402	512-0	1,0 ±0,1	0,50 ±0,05	0,35 ±0,05	0,25 ±0,10	0,2 ±0,10
RC 0603	513-0	1,6 ±0,1	0,80 ±0,10	0,45 ±0,1	0,30 ±0,20	0,3 ±0,20
RC 0805	503-0	2,0 ±0,1	1,25 ±0,10	0,50 ±0,1	0,40 ±0,20	0,4 ±0,20
RC 1206	502-0	3,1 ±0,1	1,60 ±0,10	0,55 ±0,1	0,50 ±0,25	0,5 ±0,25
RC 1210	507-0	3,1 ±0,1	2,60 ±0,15	0,55 ±0,1	0,50 ±0,25	0,5 ±0,25
RC 2010	508-0	5,0 ±0,1	2,50 ±0,15	0,55 ±0,1	0,50 ±0,20	0,6 ±0,25
RC 2512	509-0	6,35 ±0,1	3,20 ±0,15	0,55 ±0,1	0,50 ±0,20	0,6 ±0,25

*1 Derating: If the type of PC- board and a special solder for higher temperatures is used, the resistors may be used up to the upper category temperature of 155°C.

Packaging:

Type	Vitrohm Type	Packaging	Reel-ø	Pieces	Pack.-code
RC 0402	512-0	8mm Papertape	180	10000	7A
			330	40000	7Q
RC 0603	513-0	8mm Papertape	180	5000	7A
			330	20000	7Q
RC 0805	503-0	8mm Papertape	180	5000	7A
			330	20000	7Q
RC 1206	502-0	8mm Papertape	180	5000	7A
			330	20000	7Q
RC 1210	507-0	8mm Papertape	180	5000	7A
RC 2010	508-0	12mm Blistertape	180	4000	7D
RC 2512	509-0	12mm Blistertape	180	4000	7D

Ordering example: RC 0805 1K0 1% 50 7A
 Type Value Tol. TC * Pack.-code

* TC only for TC 50