



THICK FILM CHIP RESISTORS

RCG e3



Fully RoHS Compliant, *GREEN*, Thick Film, Rectangular Chip Resistors

KEY BENEFITS

- Fully *GREEN* resistor body with pure tin solder contacts
- Stability $\Delta R/R = 1\%$ for 1000 h at 70 °C
- Metal glaze on high-quality ceramic
- Compliant to RoHS Directive 2002/95/EC
- AEC-Q200 qualified

APPLICATIONS

- Telecom infrastructure
- Computer
- Consumer
- Industrial equipment
- Automotive

** A *GREEN* product is classified as environmentally friendly - for a full overview of this classification refer to the Vishay Material Category Policy at www.vishay.com/doc?99902

Datasheet is available on our web site at www.vishay.com for RCG e3 - <http://www.vishay.com/doc?20047>

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FEATURES

- Fully Green** resistor body with pure tin solder contacts
- Stability $\Delta R/R = 1\%$ for 1000 h at 70 °C
- Metal glaze on high quality ceramic
- Compliant to RoHS Directive 2002/95/EC
- AEC-Q200 qualified



STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE		RATED DISSIPATION P_{70} W	LIMITING ELEMENT VOLTAGE U_{max} , AC/DC	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	SERIES
	INCH	METRIC						
RCG0603	0603	RR 1608M	0.1	75	± 100 ± 200	± 1 ± 5	1R0 to 10M	E24; E96 E24
Zero-Ohm-Resistor: $R_{max} = 20\text{ m}\Omega$, $I_{max} = 2.0\text{ A}$								
RCG0805	0805	RR 2012M	0.125	150	± 100 ± 200	± 1 ± 5	1R0 to 10M	E24; E96 E24
Zero-Ohm-Resistor: $R_{max} = 20\text{ m}\Omega$, $I_{max} = 2.5\text{ A}$								
RCG1206	1206	RR 3216M	0.25	200	± 100 ± 200	± 1 ± 5	1R0 to 10M	E24; E96 E24
Zero-Ohm-Resistor: $R_{max} = 20\text{ m}\Omega$, $I_{max} = 3.5\text{ A}$								

- Notes**
- These resistors do not feature a limited lifetime when operated within the permissible limits. However, resistance value drift increasing over operating time may result in exceeding a limit acceptable to the specific application, thereby establishing a functional lifetime.
 - Marking: See datasheet "Surface Mount Resistor Marking" (document number 200200).
 - Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RCG0603	RCG0805	RCG1206
Rated dissipation P_{70} (1)	W	0.1	0.125	0.25
Limiting element voltage U_{max} , AC/DC	V	75	150	200
Insulation voltage U_{ins} (1 min)	V	> 100	> 200	> 300
Insulation resistance	Ω	> 10^9	> 10^9	> 10^9
Category temperature range	°C	- 55 to + 155		
Weight	mg	2	5.5	10

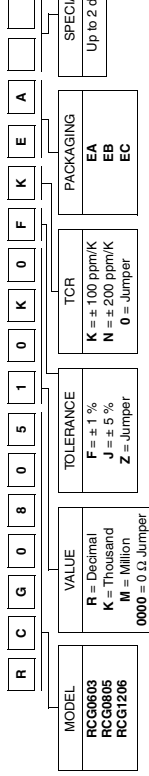
Note

(1) The power dissipation on the resistor generates a temperature rise against the local ambient, depending on the heat flow support of the printed-circuit board (thermal resistance). The rated dissipation applies only if the permitted film temperature of 155 °C is not exceeded.

** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

PART NUMBER AND PRODUCT DESCRIPTION

Part Number: RCG080510K0F1KEA (1)



PRODUCT DESCRIPTION: RCG0805 10K 1% 100 EA

RCG0805	10K	1%	100	EA
MODEL	RESISTANCE VALUE	TOLERANCE	TCR	PACKAGING
RCG0603	10R = 10 Ω	$\pm 1\%$	± 100 ppm/K	EA
RCG0805	10K = 10 k Ω	$\pm 5\%$	± 200 ppm/K	EB
RCG1206	1M = 1 M Ω			EC
	0R0 = 0 Ω , Jumper			

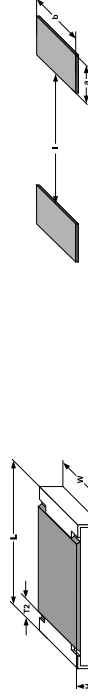
Note

(1) Preferred way for ordering products is by use of the PART NUMBER.

PACKAGING

MODEL	UNIT	PAPER TAPE ON REEL	
		QUANTITY	CODE
RCG0603	180 mm/7"	5000	EA
	285 mm/11.25"	10,000	EB
	330 mm/13"	20,000	EC
RCG0805	180 mm/7"	5000	EA
	285 mm/11.25"	10,000	EB
	330 mm/13"	20,000	EC
RCG1206	180 mm/7"	5000	EA
	285 mm/11.25"	10,000	EB
	330 mm/13"	20,000	EC

DIMENSIONS



Revision 10-T-05-11

SIZE	DIMENSIONS in millimeters						SOLDER PAD DIMENSIONS in millimeters								
	INCH	METRIC	L	W	H	T1	T2	a	b	i	l	WAVE SOLDERING	a	b	I
0603	1608	1.55 ^{+0.05} 0.06	0.85 ± 0.1	0.45 ± 0.05	0.3 ± 0.2	0.3 ± 0.2	0.3 ± 0.2	0.5	0.9	1.0	0.9	1.0	0.9	0.9	1.0
0805	2012	2.0 ^{+0.10} 0.10	1.25 ± 0.15	0.45 ± 0.05	0.3 ^{+0.20} -0.10	0.3 ± 0.2	0.3 ± 0.2	0.7	1.3	1.2	0.9	1.3	1.3	1.3	1.3
1206	3216	3.2 ^{+0.20} 0.20	1.6 ± 0.15	0.55 ± 0.05	0.45 ± 0.2	0.4 ± 0.2	0.4 ± 0.2	0.9	1.7	2.0	1.1	1.7	2.0	1.1	2.3

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