

THICK FILM CHIP RESISTORS

RCG e3

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



KEY BENEFITS

- Fully GREEN resistor body, no RoHS exemption
- Stability $\Delta R/R = 1\%$ for 1000 h at 70 °C
- Metal glaze on high quality ceramic

APPLICATIONS

- Telecom infrastructure
- Computer
- Consumer
- Industrial equipment

RESOURCES

- Datasheet: RCG e3 - <http://www.vishay.com/doc?20047>
- For technical questions contact thickfilmchip@vishay.com
- Material categorization: for definitions of compliance please see <http://www.vishay.com/doc?99912>


RoHS
COMPLIANT

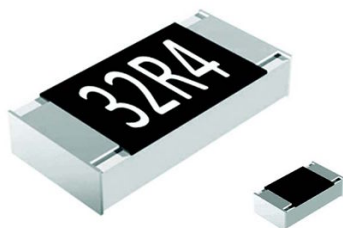
GREEN
(5-2008)

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SOLUTIONS™

THICK FILM CHIP RESISTORS

RCG e3

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



- Green resistor - does not use RoHS exemptions
- Stability $\Delta R/R = 1\%$ for 1000 h at 70 °C
- 2 mm pitch packaging option for 0603 size
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912

STANDARD ELECTRICAL SPECIFICATIONS								
TYPE	CASE SIZE IMPERIAL	CASE SIZE METRIC	POWER RATING P_{70} W	LIMITING ELEMENT VOLTAGE $U_{max.}$ AC _{RMS} /DC V	TEMPERATURE COEFFICIENT ± ppm/K	TOLERANCE ± %	RESISTANCE RANGE Ω	SERIES
RCG0402	0402	RR1005M	0.063	50	100	0.5, 1	150 to 10M	E24; E96
					150		1.0 to 147	
					200	5	1.0 to 10M	E24
			Zero-Ohm Resistor: $R_{max.} = 20\text{ m}\Omega$, $I_{max.} = 1.5\text{ A}$					
RCG0603	0603	RR1608M	0.1	75	100	0.5, 1	1.0 to 10M	E24; E96
					200	5		E24
			Zero-Ohm Resistor: $R_{max.} = 20\text{ m}\Omega$, $I_{max.} = 2.0\text{ A}$					
RCG0805	0805	RR2012M	0.125	150	100	0.5, 1	1.0 to 10M	E24; E96
					200	5		E24
			Zero-Ohm Resistor: $R_{max.} = 20\text{ m}\Omega$, $I_{max.} = 2.5\text{ A}$					
RCG1206	1206	RR3216M	0.25	200	100	0.5, 1	1.0 to 10M	E24; E96
					200	5		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, increasing resistance value drift 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 20020)
- Power rating depends on the max. temperature at the solder point, the component placement density, and the substrate material.

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	RCG0402	RCG0603	RCG0805	RCG1206
Rated dissipation P_{70} ⁽¹⁾	W	0.063	0.1	0.125	0.25
Operating voltage $U_{max.}$ ACRMS/DC	V	50	75	150	200
Insulation voltage U_{ins} (1 min)	V	75	100	200	300
Insulation resistance	Ω	$> 10^9$			
Operating temperature range	°C	- 55 to + - 155			
Mass	mg	0.65	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.

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