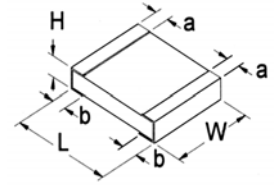


RGC Series — Semi-Precision Thick Film Chip Resistors



Features

- Precision performance
- Tolerances to $\pm 0.5\%$ and $\pm 1\%$
- RoHS compliant / lead-free
- Less sensitive to ESD discharges than comparable thin film devices
- Highly stable performance over time
- Power derating from 100% at 70°C to zero at 150°C
- Temperature coefficient of resistance of $\pm 50\text{ppm}/^\circ\text{C}$ and $\pm 100\text{ppm}/^\circ\text{C}$



Electrical Specifications

Type / Code	Package Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Maximum Overload Voltage*	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
						0.5%	1%
RGC 1/16S	0402	0.063W	50V	100V	$\pm 50\text{ ppm}/^\circ\text{C}$ $\pm 100\text{ ppm}/^\circ\text{C}$	10 Ω – 3.24M 10 Ω – 3.24M	100 Ω – 1M 10 Ω – 3.24M
RGC 1/16	0603	0.100W	50V	100V	$\pm 50\text{ ppm}/^\circ\text{C}$ $\pm 100\text{ ppm}/^\circ\text{C}$	100 Ω – 3.24M 100 Ω – 3.24M	100 Ω – 3.24M 100 Ω – 3.24M
RGC 1/10	0805	0.125W	150V	300V	$\pm 50\text{ ppm}/^\circ\text{C}$ $\pm 100\text{ ppm}/^\circ\text{C}$	10 Ω – 3.24M –	3.32 Ω – 3.24M 3.32 Ω – 3.24M
RGC 1/8	1206	0.250W	200V	400V	$\pm 50\text{ ppm}/^\circ\text{C}$ $\pm 100\text{ ppm}/^\circ\text{C}$	10 Ω – 4.64M 10 Ω – 4.64M	3.32 Ω – 4.64M 3.32 Ω – 4.64M

* Lesser of $\sqrt{\text{PR}}$ or maximum working voltage.

Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RGC 1/16S	0.039 \pm 0.002 1.00 \pm 0.05	0.020 \pm 0.002 0.50 \pm 0.05	0.014 \pm 0.002 0.35 \pm 0.05	0.008 \pm 0.004 0.20 \pm 0.10	0.010 +0.002/-0.004 0.25 +0.05/-0.10	inches mm
RGC 1/16	0.063 \pm 0.004 1.60 \pm 0.10	0.031 +0.006/-0.002 0.80 +0.15/-0.05	0.018 \pm 0.004 0.45 \pm 0.10	0.010 \pm 0.004 0.25 \pm 0.10	0.012 \pm 0.004 0.30 \pm 0.10	inches mm
RGC 1/10	0.079 \pm 0.004 2.00 \pm 0.10	0.050 \pm 0.004 1.25 \pm 0.10	0.024 \pm 0.004 0.60 \pm 0.10	0.016 \pm 0.008 0.40 \pm 0.20	0.016 \pm 0.008 0.40 \pm 0.20	inches mm
RGC 1/8	0.126 \pm 0.006 3.20 \pm 0.15	0.063 \pm 0.006 1.60 \pm 0.15	0.024 \pm 0.004 0.60 \pm 0.10	0.020 \pm 0.010 0.50 \pm 0.25	0.020 \pm 0.10 0.50 \pm 0.25	inches mm

Performance Characteristics

Test	Test Conditions	Test Results
Endurance @ 125°C	125°C, No load, 1,000 hrs.	$\pm 5\%$
Endurance @ 70°C	Rated Voltage, 1.5 hr. On, 0.5 hr. Off, 1,000 hrs. 70°C	$\pm 5\%$
Resistance to Soldering Heat	260°C \pm 5°C, 5 seconds +1/-0	$\pm 1\%$
Short Time Overload	2 seconds at 2.5 times rated or limiting voltage	$\pm 1\%$
Voltage Proof	100 volts AC, 60 seconds	No breakdown or flashover R \geq 1G Ω

Operating temperature range from -55°C to +150°C

How to Order

RGC			1/16	T1	4.75K	0.5%	R			
SEI Type			Code	TCR	Nominal Resistance	Tolerance	Packaging			
Code	Wattage	Size	TCR		Tolerance	Values	SEI Types	Pkg Qty	Description	Code
1/16S	0.063W	0402	T1 = 100ppm		0.5%	E96	1/16S	10,000	Paper	R
1/16	0.100W	0603	T2 = 50ppm		1.0%	E96	1/16, 1/10, 1/8	5,000		
1/10	0.125W	0805								
1/8	0.250W	1206								