

RG series, ultra-precision & ultra-reliability metal film chip resistors NEW

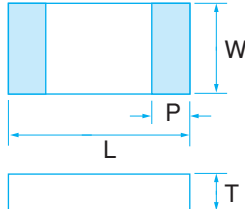


Tight resistance tolerance of $\pm 0.02\%$ and temperature coefficient of resistance of $5\text{ppm}/^\circ\text{C}$ are achieved. Under high temperature and humid condition of 85°C and $85\%\text{RH}$, and at 155°C (1000 hours operation), superior reliability of only less than $\pm 0.1\%$ of change in resistance value is realized.



SPECIFICATIONS

Mechanical



Dimension (mm)	RG1005 (0402)	RG1608 (0603)	RG2012 (0805)
L	1.0 ± 0.05	1.6 ± 0.2	2.0 ± 0.2
W	0.5 ± 0.05	0.8 ± 0.2	1.25 ± 0.2
P	0.2 ± 0.10	0.3 ± 0.2	0.4 ± 0.2
T	0.35 ± 0.05	0.4 ± 0.1	0.4 ± 0.1

Electrical

Type		RG1005			RG1608			RG2012		
Power	general	1/16W			1/10W			1/8W		
	Ultra-reliability	1/32W			1/16W			1/10W		
Resistance Tolerance (%)		±0.02 (P), ±0.05 (W), ±0.1 (B), ±0.25 (C)			±0.02 (P), ±0.05 (W), ±0.1 (B), ±0.25 (C)			±0.02 (P), ±0.05 (W), ±0.1 (B), ±0.25 (C)		
Resistance Range(Ω)		47~97.6	100~2.94k	3k~100k	47~97.6	100~4.99k	5.1k~270k	47~97.6	100~10k	10.2k~470k
Temperature Coefficient of Resistance ppm /°C(code)		±10 (N) ±25 (P)	±5 (V) ±10 (N) ±25 (P)	±10 (N) ±25 (P)	±10 (N) ±25 (P)	±5 (V) ±10 (N) ±25 (P)	±10 (N) ±25 (P)	±10 (N) ±25 (P)	±5 (V) ±10 (N) ±25 (P)	±10 (N) ±25 (P)
Maximum Operating Voltage for an element		25V			75V			150V		
Resistance Value		E-24, E-96								
Operating Tem. Range		-55°C~155°C								
Package		5,000pcs/reel (T5) 10,000pcs/reel (TA)			1,000pcs/reel (T1) 5,000pcs/reel (T5)			1,000pcs/reel (T1) 5,000pcs/reel (T5)		

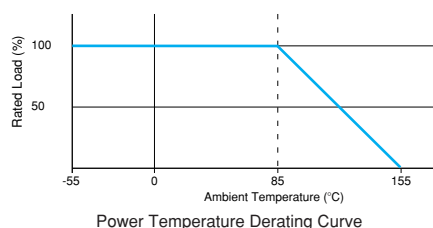
· Please contact us for Resistance tolerance $\pm 0.01\%$. · Also please Contact us for 1/4W for RG3216

Reliability

Item	Test Method	Specification		Typical
		Ultra-reliability	general	Ultra-reliability
Short time overload	Applied voltage: $2.5 \times$ rated voltage or $2 \times$ maximum operating voltage which ever is less Test Time: 5 seconds	$\pm (0.05\% + 0.01\Omega)$	$\pm (0.05\% + 0.01\Omega)$	$\pm (0.01\% + 0.01\Omega)$
Load Life	Test Temperature: 85°C Applied voltage: rated voltage Test period: repeat 1000 cycle as follow: 90 min. on/30 min. off cycled	$\pm (0.1\% + 0.01\Omega)$	$\pm (0.25\% + 0.05\Omega)$	$\pm (0.01\% + 0.01\Omega)$
Endurance	Test condition: $85^\circ\text{C} 85\%\text{RH}$ Applied power: 1/10 rated Power Test period: repeat 1000 cycle as follow: 90 min. on/30 min. off cycled	$\pm (0.1\% + 0.01\Omega)$	$\pm (0.25\% + 0.05\Omega)$	$\pm (0.05\% + 0.01\Omega)$
Rapid change of Temperature	Repeat 1000 cycle as follow: -55°C (30 min.) / Room Tem. (2 min.) / $+155^\circ\text{C}$ (30 min.) / Room Tem. (2 min.)	$\pm (0.1\% + 0.01\Omega)$	$\pm (0.25\% + 0.05\Omega)$	$\pm (0.01\% + 0.01\Omega)$
High Temperature store	$+155^\circ\text{C}$ for 1000 hours with no load	$\pm (0.1\% + 0.01\Omega)$	$\pm (0.25\% + 0.05\Omega)$	$\pm (0.01\% + 0.01\Omega)$



CHARACTERISTICS



PART NUMBER

RG 1608 N - 102 - B - T5 — Package (T1, T5, TA)

- Resistance Tolerance
- Resistance (E-24: in a three-digit number, E-96: in a four-digit number)
- Temperature Coefficient of Resistance
- Dimensions
- Part Code