RESISTORS • CAPACITORS • COILS • DELAY LINES

HIGH VALUE & HIGH VOLTAGE CYLINDRICAL RESISTORS

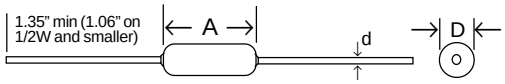
RG SERIES - General Purpose
RH SERIES - High Precision
RP SERIES - Professional Grade

Non-inductive serpentine film (RP series)

- ❒ Industry's widest range of high value/ high voltage resistors- 1/8W to 20W, resistance values up to $10^{13}\Omega$, voltages to 90KV, TC's as low as ±15ppm, tolerances to ±0.05%!
- ❒ Available on Tape & Reel (sizes <2.5" long)

OPTIONS

Various options include formed leads, matched sets, custom marking, hermetic-seal, burn-in, vacuum/space operation, custom sizes, etc. Opt. P = high pulse design, Opt H = increased voltage, Opt B = increased power.



RCD's high voltage thick-film resistors represent the most advanced technology in the industry. Series RG is designed for semi-precision applications, offering high performance and low cost at voltage levels up to 15KV. Series RH features special composition and processing enabling tight tolerances, TC's to 25ppm, voltages to 60KV. Series RP utilize highest grade materials enabling tightest tolerances, lowest VC's, TC's to 15ppm, as well as increased power, temperature, and voltage levels (to 90KV). Series RP utilize serpentine film pattern for lowest inductance. Series RP leadwires are gold-plated nickel clad copper (Series RG and RH are tinned copper). All units are printed or banded with resistance value and tolerance as minimum.

The ruggedness of these models enables superior long term reliability, especially in demanding applications such as military, space, and medical equipment, as well as electron microscopes, high impedance amplifiers, electrometers, radiation testers, etc.

RG Series	Wattage @ 25°C	Voltage Rating*	Dielectric Strength	Dimensions (Inch)			Standard Resis. Range** (K=10³, M=10⁶, G=10⁹)				
				L	D	d	25ppm	50ppm	100ppm	200ppm	350ppm
RG1/8	1/8W	300V	500V	.134 ±.04	.067 ±.025	.020	N/A	1M-10M	1M-300M	1M-300M	1M-300M
RG1/4	1/4W	500V	500V	.256 ±.04	.098 ±.025	.024	N/A	100K-50M	100K-3G	100K-3G	100K-3G
RG1/2	1/2W	1KV	500V	.368 ±.04	.134 ±.032	.025	N/A	100K-50M	100K-3G	100K-3G	100K-3G
RG1S	1W	1.5KV	500V	.472 ±.05	.158 ±.032	.028	N/A	200k-50M	200K-100M	200K-300M	200K-300M
RG1	1W	2KV	1KV	.581 ±.05	.216 ±.032	.031	N/A	200k-50M	200K-100M	200K-500M	200K-500M
RG2	2W	5KV	1KV	1.06 ±.062	.275 ±.032	.031	N/A	N/A	**	**	1M-1.5G
RG3	3W	10KV	1KV	1.67 ±.062	.275 ±.032	.031	N/A	N/A	**	**	1M-1.5G
RG4	4W	15KV	1KV	2.05 ±.062	.335 ±.032	.040	N/A	N/A	**	**	1M-1.5G

RH Series	Wattage @ 25°C	Voltage Rating*	Dielectric Strength	Dimensions (Inch)			Standard Resis. Range** (K=10³,M=10⁶,G=10⁹,T=10¹²)				
				L	D	d	25ppm	50ppm	100ppm	200ppm	400ppm
RH1/8	1/8W	500V	500V	.240±.04	.085±.025	.024	100K-50M	50K-100M	10K-100M	10K-500M	500M-4G
RH1/4	1/4W	750V	500V	.354±.04	.118±.04	.024	100K-100M	100K-100M	10K-300M	10K-1G	1G-5G
RH1/2	1/2W	1500V	500V	.500±.04	.180±.04	.031	100K-100M	100K-100M	100K-1G	100K-5G	1G-5G
RH1	1W	2000V	1KV	.571±.04	.180±.04	.031	100K-100M	100K-500M	100K-2G	100K-15G	15G-50G
RH2	2W	5000V	1KV	1.00±.08	.265±.045	.031/.04	100K-100M	100K-500M	100K-2G	100K-100G	see note 1
RH3	3W	10KV	1KV	1.65±.08	.265±.045	.031/.04	100K-100M	100K-500M	100K-2G	100K-100G	see note 2
RH4	4W	15KV	1KV	2.05±.08	.320±.045	.031/.04	-	100K-500M	100K-2G	100K-10G	-
RH6	6W	20KV	1KV	3.03±.08	.320±.045	.031/.04	-	500K-500M	500K-2G	100K-10G	-
RH10	10W	35KV	1KV	4.70±.12	.320±.045	.031/.04	-	1M-500M	1M-2G	100K-10G	-
RH16	16W	60KV	1KV	7.48±.12	.320±.045	.040	-	1M-500M	1M-2G	100K-10G	-

Note 1: RH2 is available in 400ppm TCR from 100G to 300G, 300G-600G is 1000ppm, 600G-3T is 1500ppm Note 2: RH3 is available in 400ppm TCR from 100G-600g, 600G-1T is 1000ppm, 1T-10T is 1500ppm

RP Series	Wattage @ 40°C	Voltage Rating*	Dielectric Strength	Dimensions (Inch)			Standard Resis. Range** (K=10³, M=10⁶, G=10⁹)				
				L	D	d	15ppm	25ppm	50ppm	100ppm	200ppm
RP2	3.8W	15KV	1KV	1.063 ±.04	.315 ±.025	.031	1K - 1G	1K - 10G	1K - 10G	1K - 10G	1K - 10G
RP3	5W	21KV	1KV	1.457 ±.04	.315 ±.025	.031	1K - 1G	1K - 15G	1K - 15G	1K - 15G	1K - 15G
RP5	7.5W	30KV	1KV	2.047 ±.05	.315 ±.025	.031	1K - 1G	1K - 20G	1K - 20G	1K - 20G	1K - 20G
RP7	10W	45KV	1KV	3.071 ±.06	.315 ±.025	.031	1K - 1G	1K - 30G	1K - 30G	1K - 30G	1K - 30G
RP10	13.5W	60KV	1KV	4.000 ±.06	.315 ±.025	.031	1K - 1G	1K - 40G	1K - 40G	1K - 40G	1K - 40G
RP12	16W	72KV	1KV	4.800 ±.06	.315 ±.025	.031	1K - 1G	1K - 50G	1K - 50G	1K - 50G	1K - 50G
RP15	20W	90KV	1KV	5.984 ±.06	.315 ±.025	.031	1K - 1G	1K - 60G	1K - 60G	1K - 60G	1K - 60G

* Maximum working voltage is DC or AC RMS (50-60Hz sinusoidal) and is determined by $E = (PR)^{1/2}$, E not to exceed value listed in column above. **Consult factory for res. values outside the standard range

CUSTOM DESIGNS

1. **Increased Ratings** - increased power and voltage ratings are available with special processing. By specifying Opt.H on RG series, voltage ratings are increased by 100% (by 50% on sizes 2W-4W).
2. **Matched Sets and Networks** - RCD's experience in matching resistors can result in cost savings up to 50% by allowing relatively loose absolute tolerances/TC's but tight matching requirements. Resistance matching to 0.02% and TC tracking to 5ppm is available.
3. **Threaded Terminations** - resistors are available with tapped end caps for series combination into virtually any voltage or resis. value.
4. **Hermetic-Sealed Construction** - Available on RH1, RH2, & RH3 for use in harshest environments. Add .08" to dia. & .18" to length.

P/N DESIGNATION:

RH2 ☐ - 1005 - F T 50

RCD Type

Options: P, H, B, etc (leave blank if std)

Resis.Code 0.1%-1%: 3 signif. figures & multiplier, (1001=1KΩ, 1004=1MΩ, 1007=1GΩ, 1T=1TΩ)

Resis.Code 2%-10%: 2 signif. figures & multiplier, (e.g. 102=1KΩ, 105=1MΩ, 108=1GΩ, 1T=1TΩ)

Tolerance: J=5%, G=2%, F=1%, D=.5%, C=.25%, B=.1%, A=.05%

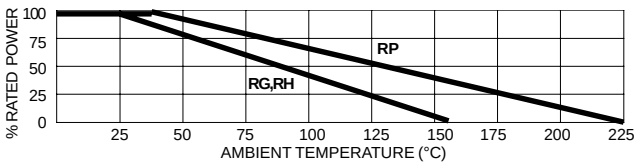
Packaging: 'B'= Bulk, 'T'= Tape & Reel

TC: 15=15ppm, 25 =25ppm, 50 =50ppm, 80 = 80ppm, 101 =100ppm, 201=200ppm, 351=350ppm, 401=400ppm, 102=1000ppm, 152=1500ppm)

SPECIFICATIONS (Typ.)		RG Series	RH Series	RP Series
Operating Temp. Range		-55 to +155°C*	-55 to +155°C*	-55 to +225°C*
Tolerances		1%-10%, 0.1% avail	0.1%-5%	0.05%-5%
Coating		Epoxy	Epoxy	Silicone
Leadwire		Tinned Copper	Tinned Copper	Gold plated **
Inductance		Low	Low	Non-Inductive
Overload (1.5xW, 5S, nte 1.5xV)		±1% ΔR	±0.5% ΔR	±0.25% ΔR
Load Life (1000 hours)		±2% ΔR	±0.5% ΔR	±0.4% ΔR
Moisture Resistance		±2% ΔR	±0.5% ΔR	±0.25% ΔR
Voltage Coefficient (VC = ppm/V)	<1GΩ	-10ppm/ V	-5ppm/ V	-0.3ppm/ V
	1GΩ - 10GΩ	-30ppm/ V	-20ppm/ V	-1.5ppm/ V
	10G - 7TΩ	N/A	-100ppm/ V	-2ppm/ V

* Extended temperature range available ** Tinned copper leads avail. on Series RP (specify Opt.25)

DERATING



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