

RVC Series — Medium Voltage Chip Resistors

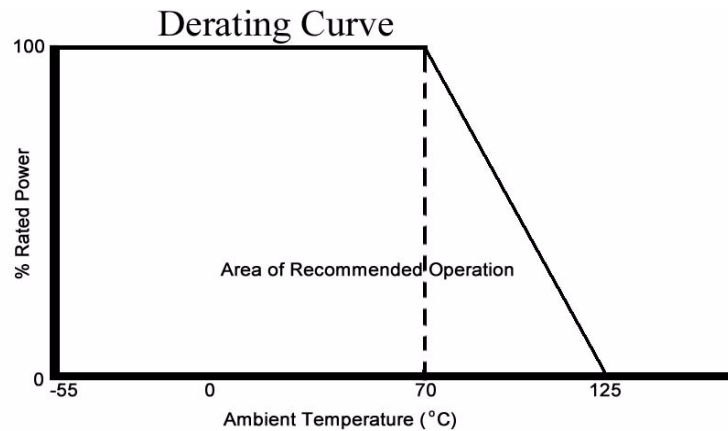
Features

- Voltage ratings 2x or more compared to standard chip resistors
- Values up to 51M
- Proportionally higher pulse power capability
- RoHS compliant / lead-free



Electrical Specifications

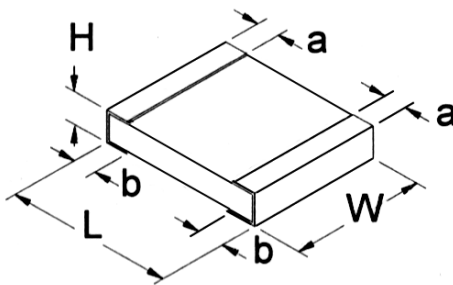
Type / Code	Power Rating (Watts) @ 70°C	Limiting Element Voltage	Isolation Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance			
					1%	2%	5%	10%
RVC 0603	0.100	200V	200V	±200 ppm/°C ±100 ppm/°C	47Ω – 464Ω 470Ω – 10M	47Ω – 464Ω 470Ω – 10M	47Ω – 464Ω 470Ω – 10M	47Ω – 464Ω 470Ω – 10M
RVC 0805	0.125	300V	500V	±200 ppm/°C ±100 ppm/°C	47Ω – 97.6Ω 100Ω – 10M	47Ω – 97.6Ω 100Ω – 10M	47Ω – 97.6Ω 100Ω – 51M	47Ω – 97.6Ω 100Ω – 51M
RVC 1206	0.250	400V	500V	±200 ppm/°C ±100 ppm/°C	47Ω – 97.6Ω 100Ω – 10M	47Ω – 97.6Ω 100Ω – 10M	47Ω – 97.6Ω 100Ω – 51M	47Ω – 97.6Ω 100Ω – 51M
RVC 2010	0.500	500V	500V	±200 ppm/°C ±100 ppm/°C	47Ω – 464Ω 470Ω – 20M	47Ω – 464Ω 470Ω – 20M	47Ω – 464Ω 470Ω – 51M	47Ω – 464Ω 470Ω – 51M
RVC 2512	1.500	800V	800V	±500 ppm/°C ~ ±200 ppm/°C ±200 ppm/°C ±100 ppm/°C	47Ω – 97.6Ω 100Ω – 549Ω 560Ω – 20M	47Ω – 97.6Ω 100Ω – 549Ω 560Ω – 20M	47Ω – 97.6Ω 100Ω – 549Ω 560Ω – 51M	47Ω – 97.6Ω 100Ω – 549Ω 560Ω – 51M



How to Order

RVC	0805	10M	5%	A		
SEI Type	Code	Nominal Resistance	Tolerance	Packaging		
Code	Tolerance	Values	Code	Description	SEI Types	Pkg Qty
0603	1%	E24, E96	A	Bulk	All	1,000
0805	2%	E24, E96	R	Tape	RVC 0603 RVC 0805 RVC 1206	5,000
1206	5%	E24	G	Emboss	RVC 2010 RVC 2512	4,000
2010	10%	E24				
2512						

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Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RVC 0603	0.063 ± 0.004 1.60 ± 0.10	0.031 + 0.006/-0.002 0.80 + 0.15/-0.05	0.018 ± 0.004 0.45 ± 0.10	0.012 ± 0.004 0.30 ± 0.10	0.012 ± 0.004 0.30 ± 0.10	inches mm
RVC 0805	0.079 ± 0.004 2.00 ± 0.10	0.049 ± 0.004 1.25 ± 0.10	0.021 ± 0.004 0.55 ± 0.10	0.016 ± 0.008 0.40 ± 0.20	0.016 ± 0.008 0.40 ± 0.20	inches mm
RVC 1206	0.126 ± 0.006 3.20 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.021 ± 0.004 0.55 ± 0.10	0.020 ± 0.010 0.50 ± 0.25	0.020 ± 0.010 0.50 ± 0.25	inches mm
RVC 2010	0.197 ± 0.006 5.00 ± 0.15	0.098 ± 0.006 2.50 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.008 0.60 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm
RVC 2512	0.248 ± 0.006 6.30 ± 0.15	0.126 ± 0.006 3.20 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.008 0.60 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm

Climatic Category

Lower Category Temperature	-55°C
Upper Category Temperature	+125°C
Duration of the Damp heat, Steady-State Test	56 days

Performance Characteristics

Test	Test Results	Test Methods (JIS C 5201-1 : 1998)
Voltage Proof	No breakdown or flashover $R \geq 1G$ ohm	Clause 4.7 500Va.c.,60s : RVC 0805,RVC 1206, RVC 2010, RVC 2512 100Va.c.,60s : RVC 0603
Variation of Resistance with Temperature	See ratings table	Clause 4.8 Measuring temperature: +20°C/ -55°C/ +20°C/ +125°C/ +20°C
Overload	$\Delta R \leq \pm 1\% + 0.05\Omega$ No visible damage, legible markings	Clause 4.13 The applied voltage shall be 2.5 times of the rated voltage or twice of the limiting element voltage, whichever is the less severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s.
Resistance to Soldering Heat	$\Delta R \leq \pm 1\% + 0.05\Omega$	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid Change of Temperature	$\Delta R \leq \pm 1\% + 0.05\Omega$ No visible damage	Clause 4.19 5 Cycles between -55°C and + 125°C.
Climatic Sequence	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.23 Dry/Damp heat (12+12h cycle), first cycle./ Cold/Damp heat (12+12h cycle), remaining cycle./ D.C. Load
Damp Test, Steady State	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage, legible markings	Clause 4.24 40°C, 95% R.H., 56 days, test a) and b) of Clause 4.24.2.1
Endurance @ 70°C	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.25.1 Rated voltage, 1.5h "ON", 05.h "OFF", 70°C, 1,000h
Endurance at the Upper Category Temperature	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.25.3 125°C, no load, 1,000h
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend of Strength of the Face Plating	$\Delta R \leq \pm 1\% + 0.05\Omega$	Clause 4.33 Amount of bend: 3mm RVC 0603 RVC 0805 RPC 1206 Amount of bend: 1mm RVC 2010 RVC 2512