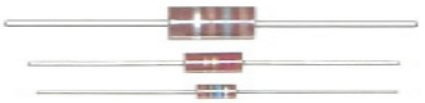
CARBON COMPOSITION RESISTORS
1/4 WATT TO 1 WATT HIGH SURGE

CC SERIES

RoHS Term.W is Pb-free and RoHS compliant

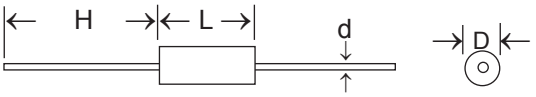
- ❒ High surge/high pulse capability
- ❒ Low inductance/high frequency performance
- ❒ Rugged hot molded construction
- ❒ 1/8W and 2W sizes in development
- ❒ Surface mount styles in development



Carbon composition resistors are considered as perhaps the most reliable of all electronic components. There are no windings or film, resulting in a truly non-inductive resistor with excellent pulse-withstanding capability. Hi-Rel Group A Screening per Mil-R-39008 is available (specify option 37). Note: composition construction isn't as stable as other types especially in humid conditions, and therefore isn't suitable for precision applications. Refer to RCD's PR Series for improved environmental performance. Alcohol is recommended instead of aqueous rinsing. Use stress relief when forming leads.

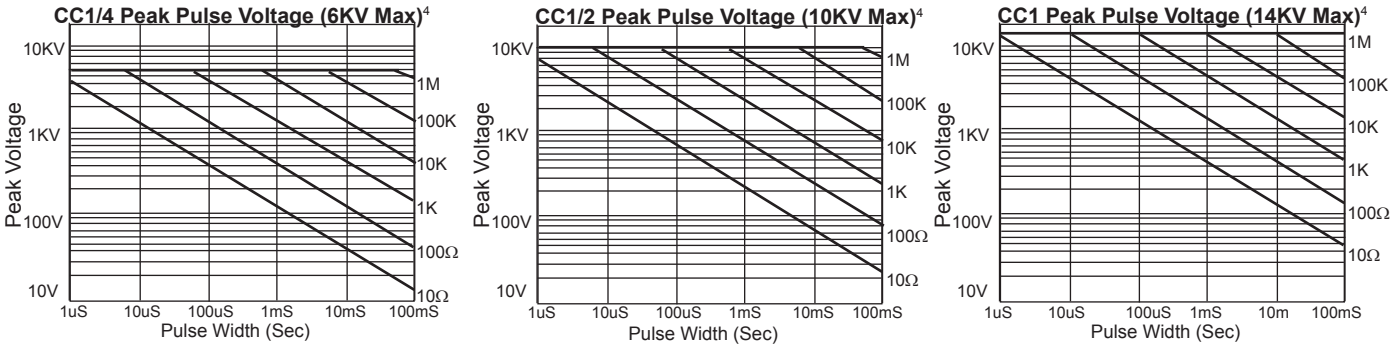
OPTIONS

- ❒ Option 37: Group A screening per Mil-R-39008
- ❒ Numerous modifications are available...custom marking, cut & formed leads, increased voltages, hot solder dipped leads, etc. Customized components are an RCD specialty!



RCD Type	Wattage at 70° C[1]	Max. Voltage[2]	Peak Pulse Voltage[3,4]	Joule Rating[3,4]	Dielectric Strength	Resistance Range	Dimensions Inch [mm]			
							L±.032 [.8]	D±.016 [.4]	d±.003 [.076]	H (typ.)
CC1/4	0.25W	250V	6KV	1.8j	500V	1Ω - 22M (E24)	.250 [6.35]	.090 [2.3]	.024 [.61]	1.0 [25.4]
CC1/2	0.5W	350V	10KV	6.4j	700V	1Ω - 22M (E24)	.375 [9.53]	.140 [3.56]	.028 [.71]	1.0 [25.4]
CC1	1W	500V	14KV	20j	1000V	2Ω - 1.2M (E24)	.59±.05 [15±1.27]	.225 [5.72]	.034 [.86]	1.0 [25.4]

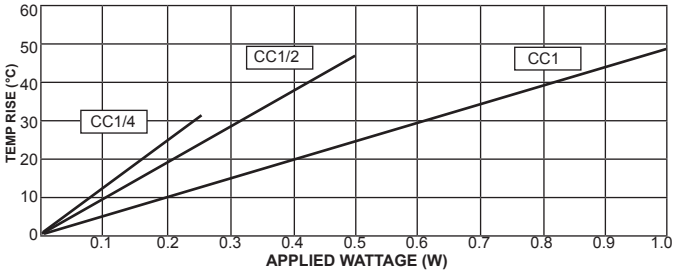
[1] Derate wattage by 1.25%/°C above 70°C [2] Rated continuous voltage determined by E= (PR)$^{1/2}$, E not to exceed the value listed. [3] Increased levels available
[4] Peak pulse (rupture) voltage and joule ratings are dependent on resistance value, pulse wave form and repetition rate. Derate 25-50% for repetitive pulses and improved stability/reliability. Repetitive pulse average power not to exceed wattage rating. Verify selection by evaluating under worst case conditions. Consult factory for assistance.



TYPICAL PERFORMANCE CHARACTERISTICS

Short-time Overload	±2.5%
Temperature Cycling	±2%
Temperature Coefficient	±0.15%/°C
Moisture Resistance	±10%
Shock and Vibration	±1%
Load Life	±10%
Voltage Coefficient	±0.03%/V
Operating Temp. Range	-55° C to + 150° C

TEMPERATURE RISE



APPLICATIONS

Typical applications include snubber circuits, lightning surge, grounding resistors, RFI suppression, dummy loads, etc. Depending on the application, CC resistors can often satisfy requirements of UL217, 268, 294, 497A, 508, 913, 1459, &1971; IEEE587, C37.90, & C62.41; IEC552, 801, & 1000-4; AAMI EC11; Bellcore TR 357 & 1089; EN 61000-4, 60601, & 50082.

P/N DESIGNATION: CC1/2 ☐ - 101 - J T W

RCD Type

Options: 37, etc (leave blank if standard)

3-Digit Resis Code: 2 signif. digits & multiplier (1R0=1Ω, 100=10Ω, 101=100Ω, etc)

Tol Code: J=5% (std on CC1/4 &1/2), K=10% (std CC1), 2% (G) available

Packaging: B = Bulk, T = Tape & Reel A = Ammo Pack

Termination: W=Lead-free (std), Q=Tin/Lead (leave blank if both acceptable)

RCD Components Inc, 520 E.Industrial Park Dr, Manchester, NH, USA 03109 rcdcomponents.com Tel: 603-669-0054 Fax: 603-669-5455 Email:sales@rcdcomponents.com