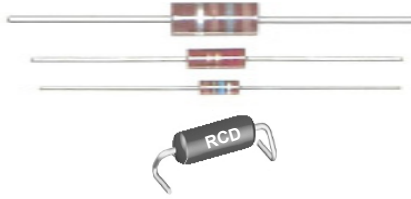


# CARBON COMPOSITION RESISTORS

## 1/4 WATT TO 1 WATT

# CC SERIES



RESISTORS • CAPACITORS • COILS • DELAY LINES



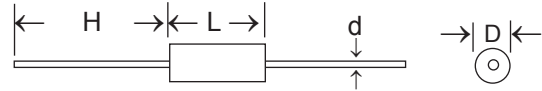
Mil-Spec screening and a Tin-Lead terminal finish are available as options on this & most other RCD products.

- High surge/high pulse capability
- Low inductance/high frequency performance
- Rugged hot molded construction
- 1/8W & 2W models in development

### OPTIONS

- Option 37: Group A screening per MIL-R-39008
- Option EU8: Group A&B screening per MIL-R-39008
- Option ZZ: Z-formed leads for surface mounting
- Custom marking/ testing/ cut&formed leads, hot solder dipped leads, preconditioning, & numerous other options.

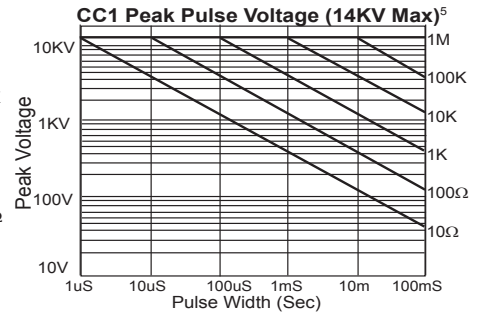
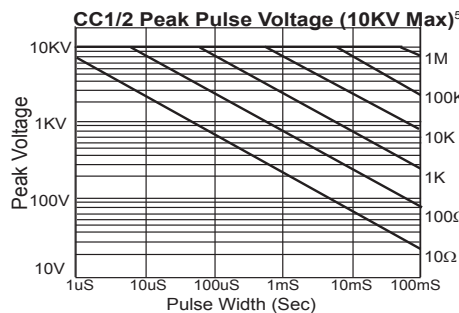
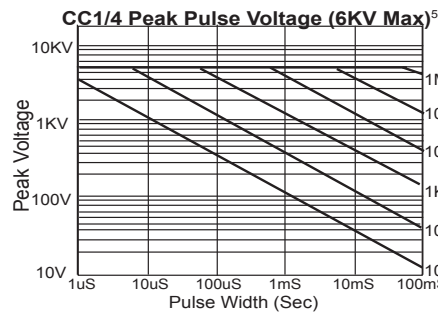
Carbon comp resistors are considered one of the most reliable of all electronic components. There are no windings or film, resulting in a non-inductive resistor with excellent pulse-withstanding capability. Hi-Rel Group A or A&B Screening per Mil-R-39008 is available.



RCD Type	Wattage at 70° C <sup>1</sup>	Max Voltage <sup>2</sup>	Peak Pulse Voltage <sup>3,5</sup>	Joule Rating <sup>3,4</sup>	Dielectric Strength	Resis. Range <a href="#">E24 Std Values</a>	Dimensions Inch [mm]			
							L <sup>4</sup>	D <sup>4</sup>	d	H (bulk pack)
CC1/4	0.25W	250V	6KV	1.8j	500V	1Ω - 22M	.250±.032 [6.35±.8]	.090±.016 [2.3±.4]	.024±.003 [.6±.076]	1.0 [25.4] typ.
CC1/2	0.5W	350V	10KV	6.4j	700V	1Ω - 22M	.374±.040 [9.5±1.02]	.140±.018 [3.56±.45]	.028±.004 [.7±.1]	1.0 [25.4] typ.
CC1	1W	500V	14KV	20j	1000V	2Ω - 1.2M	.610±.05 [15.5±1.27]	.232±.022 [5.90±.55]	.036±.006 [.9±.15]	1.0 [25.4] typ.

<sup>1</sup> Derate W & V by 1.25%/°C above 70°C    <sup>2</sup> Rated continuous voltage determined by E=(PR)<sup>1/2</sup>, E not to exceed the max value listed.    <sup>3</sup> Increased levels available

<sup>4</sup> Allow .032" [0.8mm] additional to L and D on parts with optional conformal coating

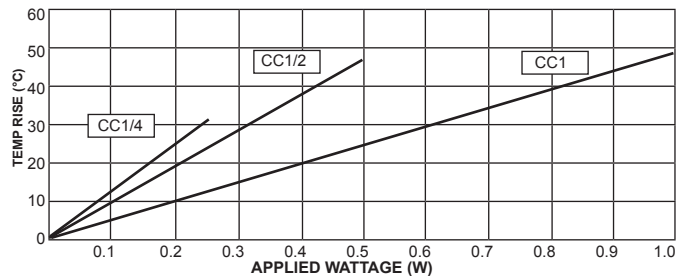


<sup>5</sup> Peak pulse (rupture) voltage and joule ratings are dependent on resistance value, pulse wave form & repetition rate. Charts indicate the maximum peak pulse (rupture) voltage based on capacitive discharge non-inductive circuit, pulse width equates to one RC time constant. Derate >25-50% for repetitive pulses and improved stability/reliability. Repetitive pulse average power not to exceed wattage rating. Verify selection by evaluating under worst case conditions. Refer to R-46 guide or consult factory for assistance.

### TYPICAL PERFORMANCE CHARACTERISTICS

Short-time Overload	±2.5%
Thermal Shock	±4%
Temperature Coefficient	±0.15%/°C
Moisture Resistance	±10%
Shock and Vibration	±2%
Load Life MIL-R-39008 3.21.1.2	±10%
Terminal Strength (direct pull)	5 lbs. min.
Operating Temp. Range	-55° C to + 130° C
Standard Marking <a href="#">Color Code Table</a>	4 color bands typ. (or alpha numeric, 5th FR band)

### TEMPERATURE RISE



### APPLICATION

Ideal for snubber circuits, lightning surges, grounding resistors, RFI suppression, dummy loads, etc. Depending on the application, CC's can often satisfy requirements of GR1089, ITU-K20, IEC61000-4-x, FCC Part 68, etc.

Composition construction isn't as stable as other types of resistors especially in humid conditions, and therefore not suitable for precision applications (refer to RCD's PR Series for improved environmental performance). As per MIL-R-39008, parts that have shifted beyond the nominal tolerance due to moisture may be baked at 100°C to recondition the parts back into tolerance.

Tape & Reel: standard qty/reel= 5Kpcs CC1/4, 4K or 5K CC1/2, 1K CC1 (non-std qty & cut reels available)

### P/N DESIGNATION:

**CC1/2** - **101** - **J** **T** **W**

**RCD Type** \_\_\_\_\_

**Options:** 37, EU8, etc (leave blank if std)

**3-Digit Resis Code:** 2 signif. digits & multiplier (1R0=1Ω, 100=10Ω, 101=100Ω, 102=1K, 103=10K, etc)

**Tol Code:** J=5% (std on CC1/4 & 1/2), K=10% (std CC1), consult factory for 2% (G) tolerance

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

**Forming:** ZZ=surface mount (leave blank if std), additional options avail

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