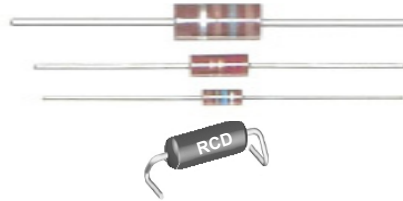
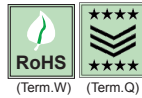


COMPOSITION RESISTORS

1/4 WATT TO 1 WATT

CC SERIES



RCD

RESISTORS • CAPACITORS • COILS • DELAY LINES

**MILSPEC
PASSIVES**

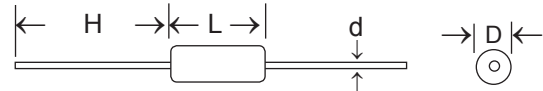
Mil-spec screening and a Tin-Lead terminal finish are available as options on this & most other RCD products.

- ☐ Low inductance/high frequency performance
- ☐ High surge/high pulse capability
- ☐ Choice of tin or tin-lead termination finish

OPTIONS

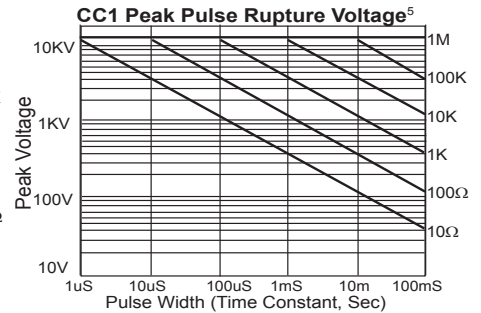
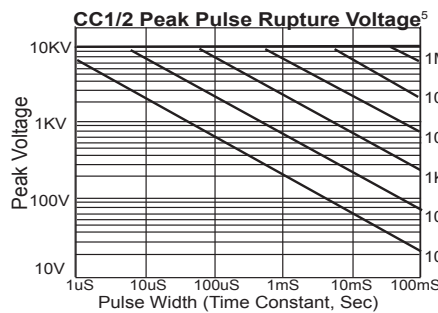
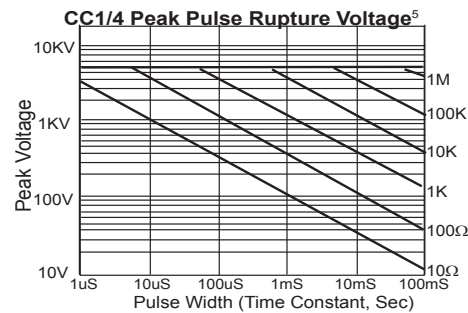
- ☐ Option 37: Group A screening per MIL-R-39008
- ☐ Option EU8: Group A&B modified screening plan
- ☐ [Option ZZ](#): Z-formed leads for surface mounting
- ☐ Custom marking/ testing/ cut&formed leads, hot solder dipped leads, preconditioning, & numerous other options.

Composition 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 surge and high frequency characteristics. The parts are also utilized in fusing applications. Hi-Rel Group A or A&B Screening per Mil-R-39008 is available.



RCD Type	Wattage at 70° C ¹	Max Voltage ²	Peak Pulse Voltage ^{3,5}	Energy Rating (1Sec) ^{3,5}	Dielectric Strength	Resis. Range E24 Std Values	Dimensions Inch [mm]			
							L ⁴	D ⁴	d	H (bulk pack)
CC1/4	0.25W	250V	6KV	1.8j	140V	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.

¹ Derate W & V by 1.25%/°C above 70°C ² Rated continuous voltage determined by $E = (PR)^{1/2}$, E not to exceed the max value listed. ³ Energy capability varies with pulse duration. Rating is based on a 1 sec overload. Shorter durations have significantly lower joule ratings ⁴ Allow .032" [0.8mm] additional to L and D on parts with optional conformal coating

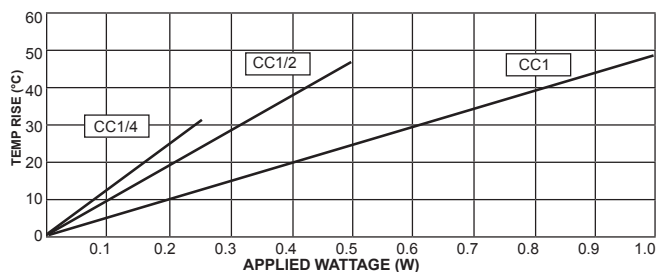


⁵ Peak pulse rupture voltage and joule ratings are dependent on resistance value, pulse wave form & repetition rate. Charts indicate the approximate rupture voltage based on capacitive discharge non-inductive circuit, pulse width equates to one RC time constant. Refer to Application Guide below and Engineering Guide R-46. Verify selection by evaluating sufficient prototypes under worst case conditions. Consult factory for assistance on all surge and fusing applications.

PERFORMANCE CHARACTERISTICS (10Ω-1M, typ.)

Short-time Overload	±2.5%
Thermal Shock	±4%
Temperature Coefficient (25-100°C)	±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 + 125° C
Standard Marking Color Code Table	4 bands (or alpha numeric, 5th FR band)

TEMPERATURE RISE



APPLICATION GUIDE

(refer to R-46 guide for additional info)
CC's are often utilized in high frequency, fusing or pulse applications, including snubbers, lightning surges, grounding resistors, RFI suppression, etc. Depending on the application, CC's can often satisfy requirements of GR1089, ITU-K20, IEC61000-4-x, etc. For fusing applications, use the peak pulse rupture voltage graphs and energy ratings as a rough starting point to determine typical fusing levels. For surge applications, employ a minimum 50% derating (greater for multiple surges, elevated temperatures, etc.). Fusing and surge capability can vary fairly significantly so be sure to consult RCD on applications that involve any surges or fusing, and verify selection by evaluating under worst case conditions. Series CC resistors are not intended for life-support applications.

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 and CFZ Series for improved stability). In accordance with MIL-R-39008, parts that have shifted beyond the nominal tolerance due to moisture shall be baked by the user at 100°C to recondition the resistance value back into tolerance.

P/N DESIGNATION:

CC1/2 ☐ - **101** - **J** **I** ☐ **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)

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

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

FA001 O Sale of this product is in accordance with GF-061. Specifications subject to change without notice.