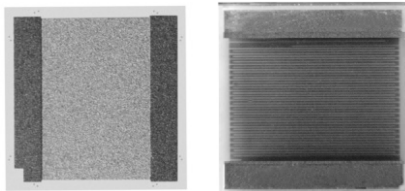


Thin Film 1010 Size Resistor on Alumina



Product may not
be to scale

The CC5 series single-value resistor chips offer increased power in larger size, low shunt capacitance and solder pad option. The CC5s nichrome resistor material offers excellent stability.

The CC5s are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The CC5s are 100% electrically tested and visually inspected to MIL-STD-883.

FEATURES

- Wire bondable
- Chip size: 0.100 inches square
- Resistance range: 50 Ω to 1M Ω
- Alumina substrate
- Low stray capacitance: < 0.2 pF
- Resistor material: Nichrome
- DC power rating: 400 mW
- Resistor passivation coat optional
- Tolerances to 0.05 %
- Solder pad optional

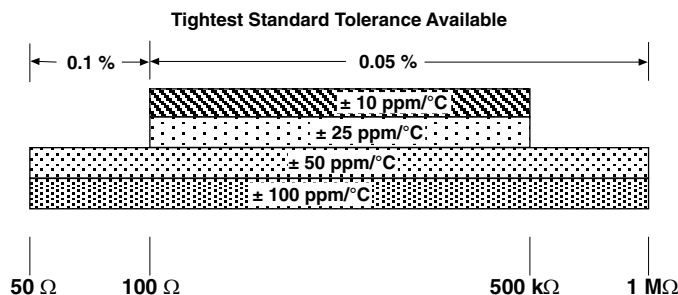
APPLICATIONS

Vishay EFI CC5 chip resistors have excellent power dissipation capability and are ideally suited for prototyping. Not suitable for high moisture applications unless protected.

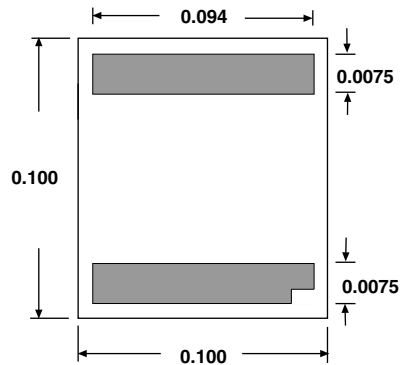
Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

Recommended for hermetic environments where die is not exposed to moisture.

TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES AND TOLERANCES**STANDARD ELECTRICAL SPECIFICATIONS**

PARAMETER	
Noise, MIL-STD-202, Method 308	- 20 dB typ.
Stability, 1000 h, + 125 °C	± 0.1 % max. $\Delta R/R$
Operating Temperature Range	- 55 °C to + 125 °C
Thermal Shock, MIL-STD-202, Method 107, Test Condition F	± 0.25 % max. $\Delta R/R$
High Temperature Exposure, + 150 °C, 100 h	± 0.25 % max. $\Delta R/R$
Dielectric Voltage Breakdown	200 V
Insulation Resistance	10 ¹² min.
Operating Voltage	200 V max.
DC Power Rating at + 125 °C (Derated to Zero at + 150 °C)	400 mW max.
5 x Rated Power Short-Time Overload, + 25 °C, 5 s	± 0.25 % max. $\Delta R/R$

DIMENSIONS in inches

SCHEMATIC


MECHANICAL SPECIFICATIONS in inches	
PARAMETER	
Chip Size	0.100 x 0.100 ± 0.003 (2.54 x 2.54 ± 0.076 mm)
Chip Thickness	0.010 ± 0.002 (0.254 ± 0.05 mm)
Chip Substrate Material	99.6 % alumina
Resistor Material	Nichrome
Bonding pad Size	0.0075 x 0.094 (0.190 x 2.375 mm) minimum
Number of Pads	2
Pad Material	25 kÅ minimum gold standard
Backing	None

Options: Terminations: Aluminum, nickel solder (62/32)
Gold back for solder die attach
Contact Applications Engineer

ORDERING INFORMATION						
Example: 100 % visual, 80 Ω, ± 10 %, ± 50 ppm/°C TCR, gold terminations						
W INSPECTION/ PACKAGING	CC5 PRODUCT FAMILY	8000 RESISTANCE VALUE	B MULTIPLIER CODE	K TOLERANCE CODE	D TCR	G TERMINATIONS
W = 100 % visually inspected parts in matrix tray per MIL-STD-883 X = Sample, commercial visually inspected parts loaded in matrix trays (4 % AQL)		Use first 4 significant digits of resistance	B = 0.01 A = 0.1 0 = 1 1 = 10 2 = 100	A = 0.05 %* B = 0.1 %* C = 0.25 %* D = 0.5 % F = 1.0 % G = 2.0 % J = 5.0 % K = 10 % *Coating standard	A = ± 10 ppm/°C B = ± 25 ppm/°C D = ± 50 ppm/°C E = ± 100 ppm/°C	G = Gold S = Solder



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.