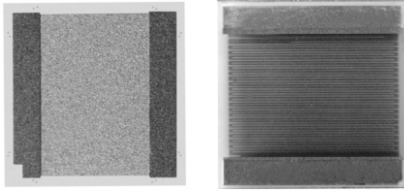


Thin Film 1010 Size Resistor on Alumina



Product may not be to scale

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

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.

APPLICATIONS

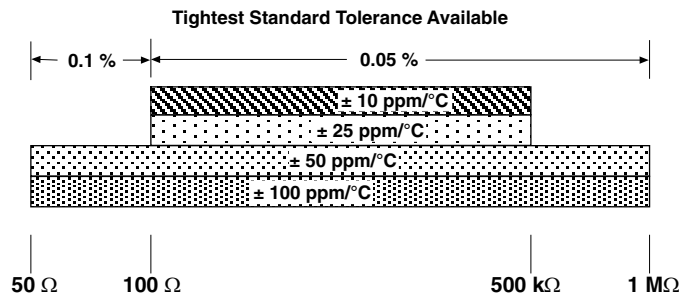
Vishay EFI CC5 chip resistors have excellent power dissipation capability and are ideally suited for prototyping. Not suitable for high moisture applications unless protected.

Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

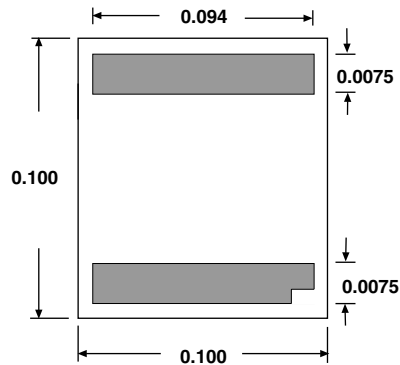
Recommended for hermetic environments where die is not exposed to moisture.

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. ΔR/R
Operating Temperature Range	- 55 °C to + 125 °C
Thermal Shock, MIL-STD-202, Method 107, Test Condition F	± 0.25 % max. ΔR/R
High Temperature Exposure, + 150 °C, 100 h	± 0.25 % max. ΔR/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. ΔR/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	CC5	8000	B	K	D	G
INSPECTION/ PACKAGING	PRODUCT FAMILY	RESISTANCE VALUE	MULTIPLIER CODE	TOLERANCE CODE	TCR	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



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