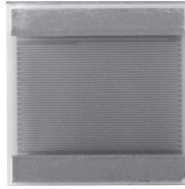
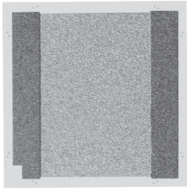


## Thin Film 1010 Size Resistor on Alumina

CHIP RESISTORS



Product may not be to scale

### FEATURES

- Chip size: 0.100 inches square
- Resistance range: 50Ω to 1 MegΩ
- Alumina substrate
- Low Stray Capacitance: < 0.2pF
- Resistor material: nichrome
- DC power rating: 400mW
- 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

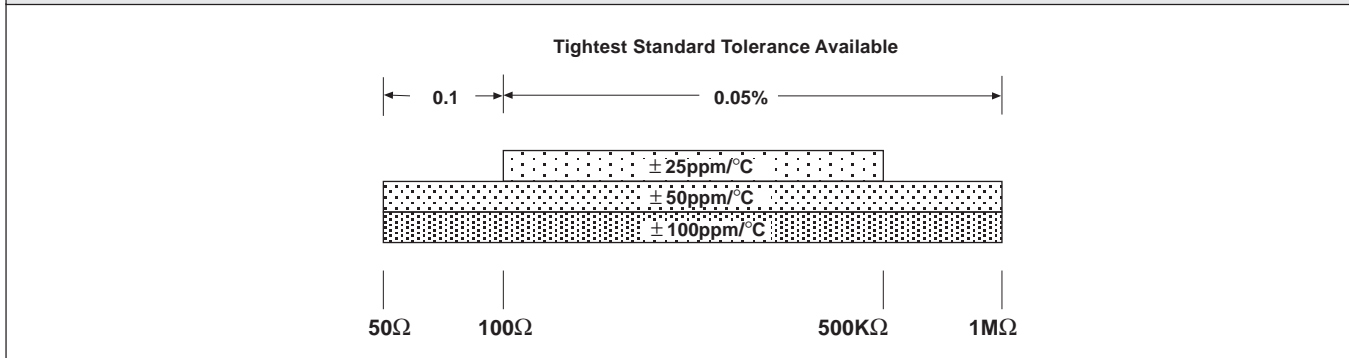
Vishay EFI CC5 chip resistors have excellent power dissipation capability and are ideally suited for prototyping. Not suitable for high moisture applications unless protected.

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



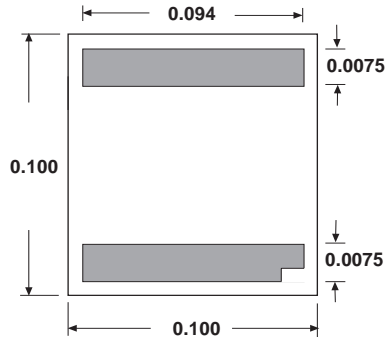
### STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	
Noise, MIL-STD-202, Method 308	- 20dB typical
Stability, 1000 hours, + 125°C	± 0.1% maximum ΔR/R
Operating temperature range	- 55°C to + 125°C
Thermal shock, MIL-STD-202, Method 107, Test condition F	± 0.25% maximum ΔR/R
High temperature exposure, + 150°C, 100 hours	± 0.25% maximum ΔR/R
Dielectric voltage breakdown	200V
Insulation resistance	10 <sup>12</sup> minimum
Operating voltage	200V maximum
DC power rating at + 125°C (derated to zero at + 150°C)	400mW maximum
5 x rated power short-time overload, + 25°C, 5 seconds	± 0.25% maximum ΔR/R

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**DIMENSIONS** in inches



CHIP RESISTORS

**SCHEMATIC**



<b>MECHANICAL SPECIFICATIONS</b> in inches	
PARAMETER	
Chip size	0.100 x 0.100 ± 0.003 (2.54 x 2.54 ± 0.076mm)
Chip thickness	0.010 ± 0.002 (0.254 ± 0.05mm)
Chip substrate material	99.6% alumina
Resistor material	Nichrome
Bonding pad size	0.0075 x 0.094 (0.190 x 2.375mm) minimum
Number of pads	2
Pad material	25kÅ minimum gold standard
Backing	None

**OPTIONS:** Terminations: Aluminum, Nickel solder (63/32)  
 Gold back for solder die attach  
 Contact Applications Engineer

<b>ORDERING INFORMATION</b>						
Example: 100% visualled, 80Ω, ± 10%, ± 50ppm/°C TCR, Gold Terminations, Resistor coated (thermal set plastic)						
W	CC5	8000	B	K	D	GC
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 or 5 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 = ± 25ppm/°C D = ± 50ppm/°C E = ± 100ppm/°C	G = Gold S = Solder GC = Gold Coated SC = Solder/Coated

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