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 CC5-s nichrome resistors material offers excellent stability.

The CC5- resistors are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The CC5- resistors are 100% electrically tested and visually inspected to MIL-STD-883, method 2032 class H or K.

FEATURES

- Wire bondable
- Chip size: 0.100 inches square
- Case: 1010
- Resistance range: 50 Ω to 1 MΩ
- 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.

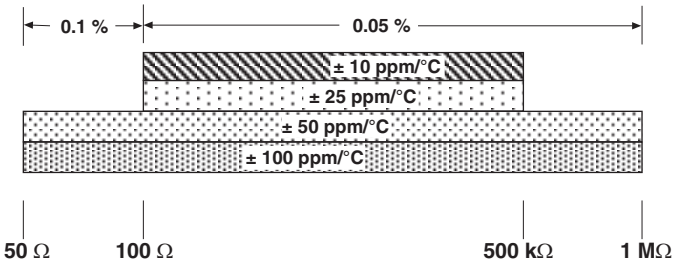
Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

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

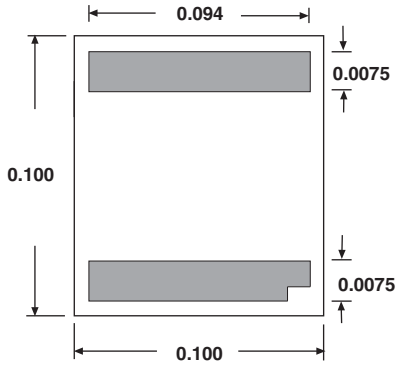
TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES, AND TOLERANCES		
PARAMETER	**VALUE**	**UNIT**
Total Resistance Range	50 to 1M	Ω
Standard Tolerances	± 0.05, ± 0.1	%
TCR	± 10, ± 25, ± 50, ± 100	ppm/°C

Tightest Standard Tolerance Available



STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER	**VALUE**	**UNIT**
Noise, MIL-STD-202, Method 308	- 20 typ.	dB
Stability, 1000 h, + 125 °C	± 0.1 max. $\Delta R/R$	%
Operating Temperature Range	- 55 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.	Ω
Operating Voltage	200 max.	V
DC Power Rating at + 125 °C (Derated to zero at + 150 °C)	0.4 max.	W
5 x Rated Power Short-Time Overload, + 25 °C, 5 s	± 0.25 max. $\Delta R/R$	%

DIMENSIONS in inches



SCHEMATIC

MECHANICAL SPECIFICATIONS

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

GLOBAL PART NUMBER INFORMATION

Global Part Number: CC5-12500KKSSNHWS

Global Part Number Description: CC5 1.25K 10 % 100 ppm/°C Std SnPb None H WS

C	C	5	-	1	2	5	0	0	K	K	S	S	N	H	W	S

MODEL	RESISTANCE	RESISTANCE MULTILPLIER CODE	TOL. CODE (%)	TCR (ppm/°C)	TRIM STYLE	TERMINATION	BACK METAL	VISUAL CLASS	PACKAGING CODE
CC5- 100 x 100 size NiCr on Alumina	First 4 digits are significant figures 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** = 10.0	**E** = ± 25 **C** = ± 50 **K** = ± 100	**E** = Edg **S** = Std **U** = Usr	**G** = Au **S** = SnPb **A** = Al **T** = Lead (Pb)-free (e1)	**G** = Au **N** = None	**H** = Class H **K** = Class K	**WS** = Waffle pack 100 min., 1 mult **TS** = Tape and reel 100 min., 1 mult

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