

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 M 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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS*
Available

HALOGEN FREE
Available

GREEN
(5-2008)
Available

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

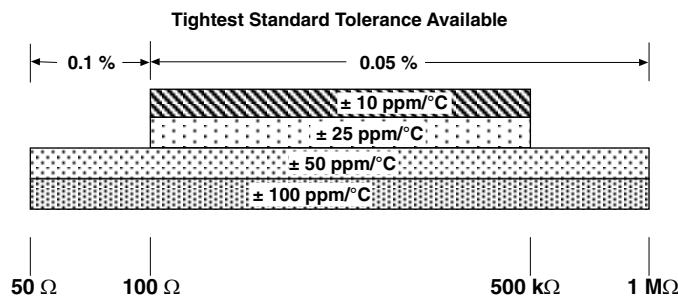
APPLICATIONS

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:

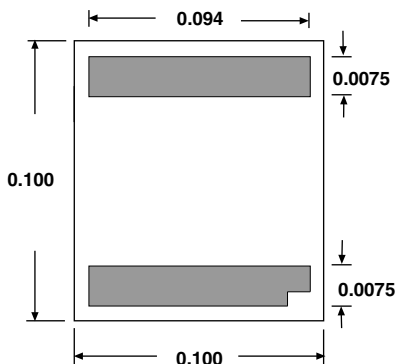
- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

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	$\pm 0.05, \pm 0.1$	%
TCR	$\pm 10, \pm 25, \pm 50, \pm 100$	ppm/ $^{\circ}$ C



STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Noise, MIL-STD-202, Method 308	-20 typ.	dB
Stability, 1000 h, +125 $^{\circ}$ C	± 0.1 max. $\Delta R/R$	%
Operating Temperature Range	-55 to +125	$^{\circ}$ C
Thermal Shock, MIL-STD-202, Method 107, Test Condition F	± 0.25 max. $\Delta R/R$	%
High Temperature Exposure, +150 $^{\circ}$ 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 $^{\circ}$ C (Derated to zero at +150 $^{\circ}$ C)	0.4 max.	W
5x Rated Power Short-Time Overload, +25 $^{\circ}$ 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: CC5-1250KKSSNHWS																
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 MULTIPLIER 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 3 = 1000	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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