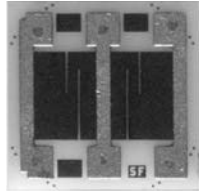


Thin Film, 1010 Center-Tapped Resistor Divider Network on Alumina



Product may not be to scale

The CCC series resistor chips offer good 400 mW power, low shunt capacitance and a center tap feature.

The CCCs nichrome resistor material offers excellent stability. The CCCs are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology.

The CCCs are 100 % electrically tested and visually inspected to MIL-STD-883, method 2032 class H or K.

FEATURES

- Wire bondable
- Larger single size for extended value range
- Resistance range total: 100 Ω to 1 M Ω
Custom values: R_A or R_B - 50 Ω to 500 k Ω
- Chip size: 0.100" x 0.100"
- Case: 1010
- Power: 400 mW
- Alumina substrate
- Low stray capacitance: < 0.2 pF
- Resistor material: Nichrome
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



APPLICATIONS

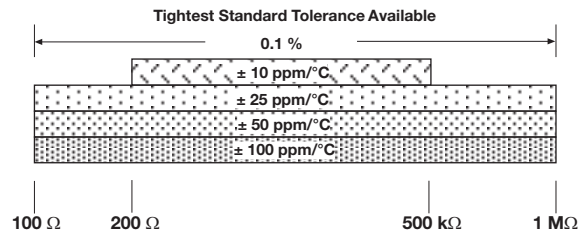
Vishay EFI CCC chip resistors provide excellent high-frequency response and are ideally suited for prototyping.

Typical application areas are:

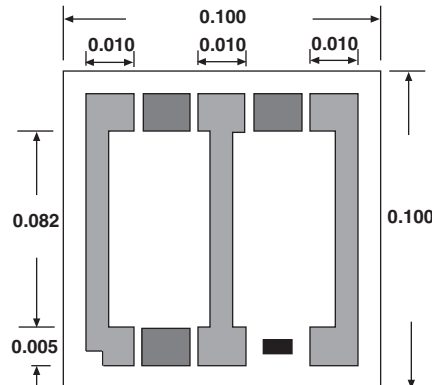
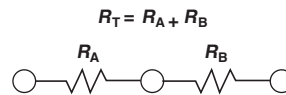
- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

Recommended for hermetic environments where die is not exposed to moisture

TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES, AND TOLERANCES		
PARAMETER	VALUE	UNIT
Total Resistance Range	100 to 1M	Ω
Standard Tolerances	± 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
Center Tap Ratio, R_A/R_B : Tolerance	1 ± 1	%
Stability, 1000 h, + 125 $^{\circ}$ C, 400 mW	± 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	400	V
Insulation Resistance	10^{12} min.	Ω
Operating Voltage	200 max.	V
DC Power Rating at 125 $^{\circ}$ C	0.4 max.	W
5 x 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" (2.5 mm x 2.5 mm ± 0.08 mm)
Chip Thickness	0.010" ± 0.002" (0.25 mm ± 0.03 mm)
Chip Substrate Material	99.6 % alumina, 2 microinch to 4 microinch finish
Resistor Material	Nichrome
Bonding Pad Size	0.005" x 0.010" (0.12 mm x 0.24 mm) min.
Number of Pads	6
Pad Material	25 kÅ minimum gold standard
Backing	None (Au optional)

GLOBAL PART NUMBER INFORMATION																
Global Part Number: CCC50000KCKKNHWS																
Global Part Number Description: CCC 5K 10% RT 0.25% ± 100 ppm/°C ± 10 ppm/°C Au None H WS																
C	C	C	5	0	0	0	0	K	C	K	K	G	N	H	W	S
MODEL	RESISTANCE (R TOTAL)	RESISTANCE MULTIPLIER CODE	TOL. CODE (%)	RATIO TOL. (%)	TCR (ppm/°C)	TCR TRACK (ppm/°C)	TERMINATION	BACK METAL	VISUAL CLASS	PACKAGING CODE						
CCC	First 4 digits are significant figures of resistance	A = 0.1 0 = 1 1 = 10 2 = 100 3 = 1000	B = 0.1 C = 0.25 D = 0.5 F = 1.0 G = 2.0 J = 5.0 K = 10.0	B = 0.1 C = 0.25 D = 0.5 F = 1.0 G = 2.0 U = User N = No	E = ± 25 C = ± 50 K = ± 100	G = ± 2 J = ± 5 K = ± 10 N = No	G = Au	G = Au N = None	H = Class H K = Class K	WS = Waffle pack 100 min., 1 mult						



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