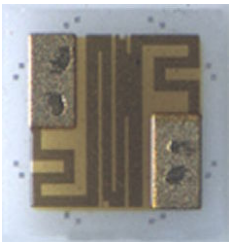
Thin Film 0202 Size Resistor on Alumina



Product may not be to scale

The CC8 series resistor chips offer a combination of low shunt capacitance, small size and excellent stability. The CC8s are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The CC8s are 100 % electrically tested and visually inspected to MIL-STD-883 method 2032 class H or class K.

FEATURES

- Chip size: 0.020 inches square
- Wire bondable
- Resistance range: 20 Ω to 20 kΩ
- Alumina substrate
- Case: 0202
- Low stray capacitance: < 0.2 pF
- Resistor material: nichrome with passivation coat
- Tolerances to 0.5 %
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

APPLICATIONS

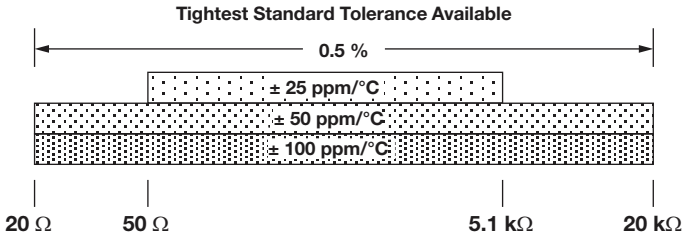
Vishay EFI CC8 chip resistors provide excellent high-frequency response and are ideally suited for prototyping.

Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

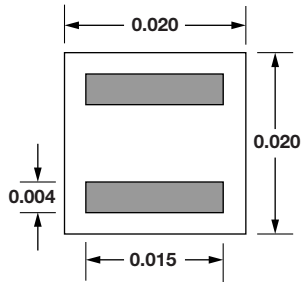
Recommended for hermetic environment where die is not exposed to moisture.

TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES, AND TOLERANCES		
PARAMETER	**VALUE**	**UNIT**
Total Resistance Range	20 to 20K	Ω
Standard Tolerances	± 0.5	%
TCR	± 25, ± 50, ± 100	ppm/°C

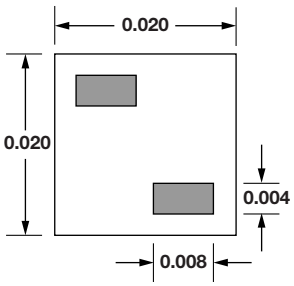


STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER	**VALUE**	**UNIT**
Noise, MIL-STD-202, Method 308	-20 dB typ.	dB
Moisture Resistance, MIL-STD-202 Method 106 (Passivated Film)	± 0.5 max. $\Delta R/R$	%
Stability, 1000 h, +125 °C, 25 mW	± 0.2 max. $\Delta R/R$	%
Operating Temperature Range	-55 to +125	°C
Thermal Shock, MIL-STD-202, Method 107, Test Condition F	± 0.25 max. $\Delta R/R$	%
High Temperature Exposure, +150 °C, 1000 h	± 0.5 max. $\Delta R/R$	%
Dielectric Voltage Breakdown	400	V
Insulation Resistance	10^{12} min.	Ω
Operating Voltage	100 max.	V
DC Power Rating at +70 °C (Derated to zero at +150 °C)	0.035 max.	W
5x Rated Power Short-Time Overload, +25 °C, 5 s	± 0.25 max. $\Delta R/R$	%

DIMENSIONS in inches



TYPCIAL RANGE
20 Ω to 100 Ω



TYPICAL RANGE
110 Ω to 20 kΩ

SCHEMATIC

MECHANICAL SPECIFICATIONS

PARAMETER	VALUE
Chip Size	0.020" x 0.020" ± 0.003" (0.5 mm x 0.5 mm ± 0.08 mm)
Chip Thickness	0.010" ± 0.002" (0.25 mm ± 0.05 mm)
Chip Substrate Material	99.6 % alumina, 2 µ" to4 µ" finish
Resistor Material	Nichrome
Bonding Pad Size	0.004" x 0.008" (0.10 mm x 0.20 mm) minimum
Number of Pads	2
Pad Material	25 kΩ minimum gold standard
Passivation [1]	PECVD nitride
Backing	None

Note

[1] PEVCD nitride will be included on part unless otherwise specified

GLOBAL PART NUMBER INFORMATION

GLOBAL PART NUMBER: CC8-12500KKSGNHWS

GLOBAL PART NUMBER DESCRIPTION: CC8 1.25K 10 % 100 ppm Std Gold None H WS

C	C	8	-	1	2	5	0	0	K	K	S	G	N	H	W	S

MODEL	RESISTANCE	RESISTANCE MULTIPLIER CODE	TOLERANCE CODE	TCR (ppm/°C)	TRIM STYLE	TERMINATION	BACK METAL	VISUAL CLASS	PACK CODE 17
CC8-	First 4 digits are significant figures of resistance	**B** = 0.01 **A** = 0.1 **0** = 1 **1** = 10	**D** = 0.5 % **F** = 1.0 % **G** = 2.0 % **J** = 5.0 % **K** = 10 %	**E** = ± 25 **C** = ± 50 **K** = ± 100	**E** = edg **S** = std **U** = usr	**G** = Au **A** = Al	**G** = Au **N** = none	**H** = class H **K** = class K	**WS** = waffle pack 100 min., 1 mult.

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