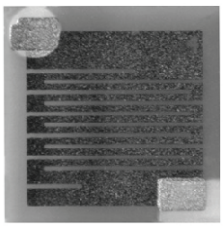
Thin Film 0303 Size Resistor on Alumina



Product may not be to scale

The CC2 series single-value resistor chips offer a relatively small size, low shunt capacitance and solder pad option. The CC2s nichrome resistor material offers excellent stability.

The CC2s are manufactured using Vishay Electro Films (EFI) sophisticated thin film equipment and manufacturing technology. The CC2s are 100 % electrically tested and visually inspected to MIL-STD-883.

FEATURES

- Wire bondable
- Chip size: 0.030 inches square
- Case: 0303
- Resistance range: 25 Ω to 38 kΩ
- Alumina substrate
- Low stray capacitance: < 0.2 pF
- Resistor material: Nichrome
- Resistor passivation coat optional
- Tolerances to 0.05 %
- 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 CC2 chip resistors provide excellent high-frequency response and are ideally suited for prototyping.

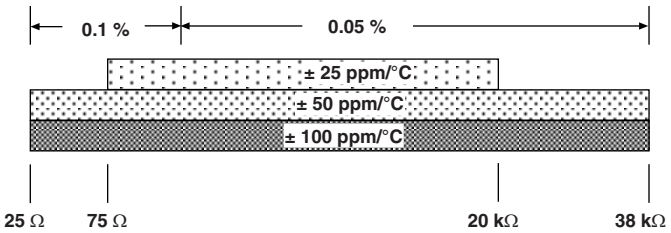
Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

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

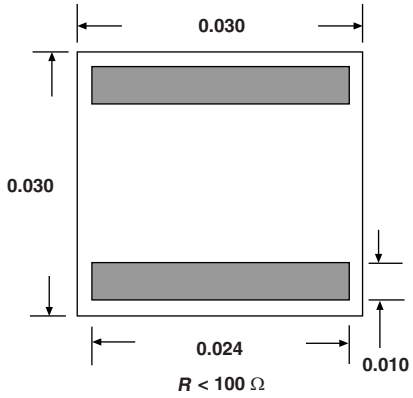
TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES, AND TOLERANCES		
PARAMETER	**VALUE**	**UNIT**
Total Resistance Range	25 to 38K	Ω
Standard Tolerances	± 0.05, ± 0.1	%
TCR	± 10, ± 25, ± 50, ± 100	ppm/°C

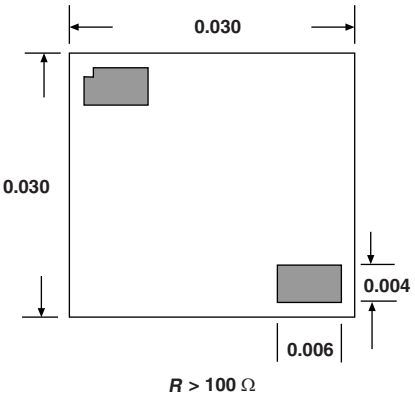
Tightest Standard Tolerance Available



STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER	**VALUE**	**UNIT**
Noise, MIL-STD-202, Method 308	-20 typ.	dB
Moisture Resistance, MIL-STD-202, Method 106 - Hermetic Applications	± 0.2 max. $\Delta R/R$	%
Stability, 1000 h, +125 °C, 100 mW	± 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	± 0.1 max. $\Delta R/R$	%
Dielectric Voltage Breakdown	400	V
Insulation Resistance	10^{12} min.	Ω
Operating Voltage	100	V
DC Power Rating at +125 °C (Derated to Zero at +150 °C)	0.100 max.	W
5x 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	0.030" x 0.030" ± 0.003" (1.27 mm x 1.27 mm ± 0.076 mm)
Chip Thickness	0.010" ± 0.002" (0.25 mm ± 0.05 mm)
Chip Substrate Material	99.6 % alumina, 2 µ" to 4 µ" finish
Resistor Material	Nichrome
Bonding Pad Size	0.004" x 0.006" (0.100 mm x 0.15 mm) minimum
Number of Pads	2
Pad Material	25 kÅ minimum gold standard
Backing	None

GLOBAL PART NUMBER INFORMATION

Global Part Number: CC2-12500KKSSNHWS
Global Part Number Description: CC2- 1.25K 10 %, 100 ppm/°C, std trim, SnPb terminations, no back metal, class H, WS

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

MODEL	RESISTANCE	RES. MULTIPLIER CODE	TOL. CODE (%)	TCR (ppm/°C)	TRIM STYLE	TERMINATION	BACK METAL	VISUAL CLASS	PACKAGING CODE
CC2-	First 4 digits are significant figures of resistance	**B** = 0.01 **A** = 0.1 **0** = 1 **1** = 10	**A** = 0.05 **B** = 0.1 **C** = 0.25 **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 **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

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