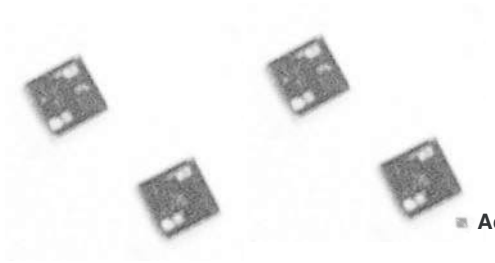
CS 22

Vishay Sfernice

Single Value Chip Resistor



Actual Size

Chromium silicon thin film is very well suited to produce high density and high ohmic value resistor chips. These high ohmic value chip resistors are available with improved performances and size when compared to thick film counterparts.

FEATURES

- Small size 20 mil x 20 mil
- Very high ohmic value up to 10 MΩ
- Good stability 0.1 % (2000 h, rated power at + 70 °C)
- Wirebondable

Pb-free

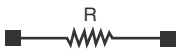
RoHS COMPLIANT

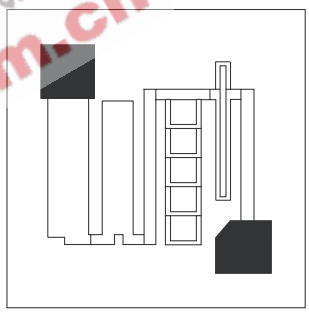
GREEN (5-2008)*

TYPICAL PERFORMANCE

	ABS
TCR	100 ppm/°C
TOL.	0.5 %

SCHEMATIC AND PATTERN

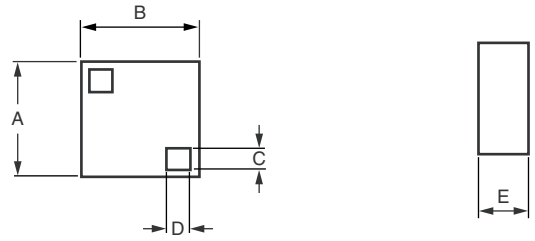




STANDARD ELECTRICAL SPECIFICATIONS		
TEST	**SPECIFICATIONS**	**CONDITIONS**
MATERIAL	**PASSIVATED CHROMIUM SILICON**	
Resistance range	10 kΩ to 10 MΩ	
Absolute TCR	± 100 ppm/°C (± 50 ppm/°C on request)	- 55 °C to + 155 °C
Absolute tolerance	± 0.5 %, ± 1 %, ± 2 %	
Power dissipation	100 mW at + 25 °C, 50 mW at + 70 °C, 25 mW at + 125 °C	
Stability	± 0.1 % typical, ± 0.2 maximum	2000 h at + 70 °C at Pn
Working voltage	100 V_{DC}	Higher on Al_2O_3
Operating temperature range	- 55 °C to + 155 °C	
Storage temperature range	- 55 °C to + 155 °C	
Noise	< - 20 dB typical	MIL-STD-202 Method 308
Thermal EMF	< 0.01 µV/°C	
Shelf life stability	200 ppm	1 year at + 25 °C

* Please see document “Vishay Green and Halogen-Free Definitions (5-2008)” http://www.vishay.com/doc?99902

DIMENSIONS



DIMENSION	INCHES	MILLIMETERS
A	0.021 ± 0.002	0.55 ± 0.10
B	0.021 ± 0.002	0.55 ± 0.10
C	0.004	0.10
D	0.004	0.10
E	0.015	0.40 maximum

MECHANICAL SPECIFICATIONS	
Resistive element	Chromium Silicon
Passivation	Silicon Nitride
Substrate material	Silicon (consult Vishay for Al_2O_3)
Bonding pads	Aluminum

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CS22-100KD0016 (preferred part number format)

C	S	2	2	-	1	0	0	K	D	0	0	1	6
GLOBAL MODEL				VALUE Decimal R, K or M			TOLERANCE **D** = ± 0.5 % **F** = ± 1.0 % **G** = ± 2.0 %			OPTION leave blank if no option			

Historical Part Number example: CS22 150K 0.5 % R0016 (will continue to be accepted)

CS22	150K	0.5 %	R0016
HISTORICAL MODEL	VALUE	TOLERANCE	OPTION

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All product specifications and data are subject to change without notice.

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