Single Value Wirebondable Thin Film Chip Resistors



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

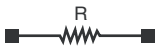
- Small size 20 mil x 20 mil
- Very high ohmic value up to 10 MΩ
- Aluminum or gold terminations
- Good stability 0.1 % (2000 h, rated power at + 70 °C)
- Wirebondable
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

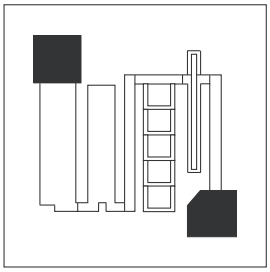
Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

SCHEMATIC AND PATTERN





STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE	RESISTANCE RANGE Ω	RATED POWER $P_{70\,°C}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE ± %	TEMPERATURE COEFFICIENT ± ppm/°C
CS22	0202	10K to 10M	0.05	100 (1)	0.5, 1, 2	50, 100

Note

(1) Higher on Al_2O_3

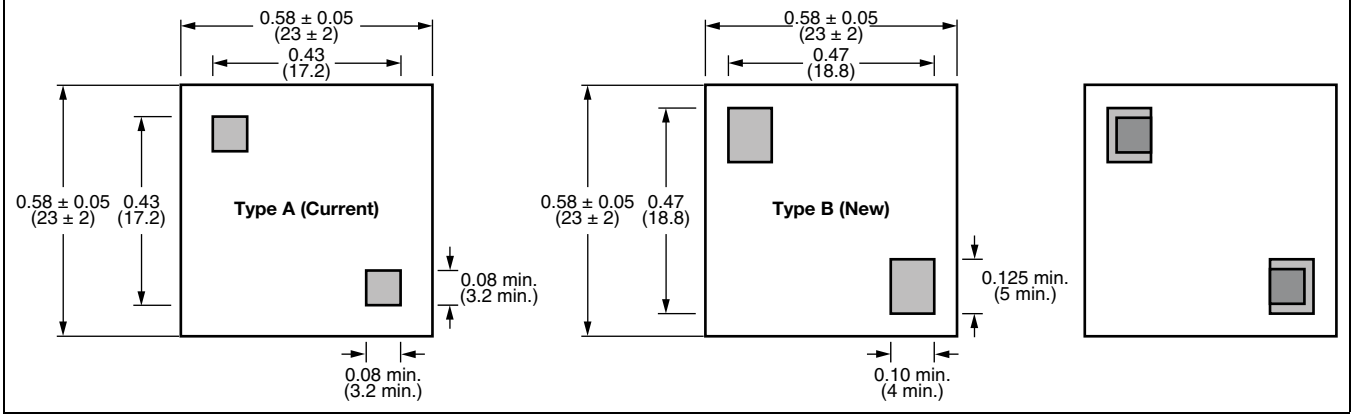
CLIMATIC SPECIFICATIONS

Operating temperature range	- 55 °C to + 155 °C
Storage temperature range	- 55 °C to + 155 °C

MECHANICAL SPECIFICATIONS

Resistive element	Chromium silicon
Passivation	Silicon nitride
Substrate material	Silicon (consult Vishay for Al_2O_3)
Bonding pads	Aluminum or gold

DIMENSIONS in millimeters (inches)



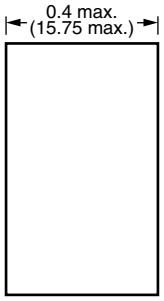
Note

- Customer can get one or the other part, but positions of pads are similar.

For technical questions, contact: sferthinfilm@vishay.com

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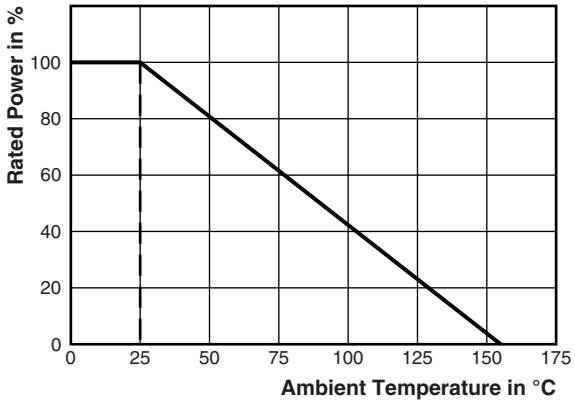
DIMENSIONS in millimeters (inches)



TECHNICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Stability	± 0.1 % typical, ± 0.2 maximum	2000 h at + 70 °C at Pn
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

DERATING



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	TOLERANCE	TERMINATIONS	OPTION
	Decimal R, K or M	**D** = ± 0.5 % **F** = ± 1.0 % **G** = ± 2.0 %	Blank = Aluminum **G** = Gold	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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