

Thickfilm Resistor CS 009

► Resistance ranges, tolerances and TC's

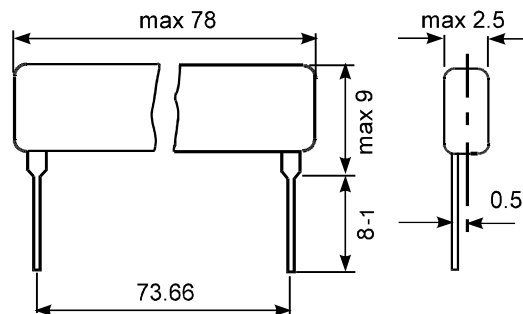
Tolerance	± 1%	± 2%	± 5%	± 10%
Resistance ranges	100K - 100M	>100M - 500M	>500M - 2G	>2G - 20G

All values within the resistance range are available.
Lower tolerance-values upon request.

► Ratings by IEC 60115-1

Thermal resistance R_{th}		max. 20 K/W
Limited element voltage		≅ 20 000 V
Rated dissipation	P_{70} ($\vartheta_o = 125$ °C)	3.0 W
	P_{40} ($\vartheta_o = 125$ °C)	4.7 W
Climatic category		55 / 125 / 56
Insulation voltage		> 500 V
Insulation resistance		> 10^{10} Ω
Temp. characteristics	≤ 250M	± $100 \times 10^{-6} / ^\circ\text{C}$
	> 250M	± $250 \times 10^{-6} / ^\circ\text{C}$
Voltage coefficient		< $5 \times 10^{-6} / \text{V}$
Weight (100 pcs.)		ca. 210 g
Marking		letter
Cleaning solvents		For the removal of flux can be used: ethanol, methanol, isopropanol, propanol, butanol and water; reaction time max. 5 minutes

► Dimensions CS 009



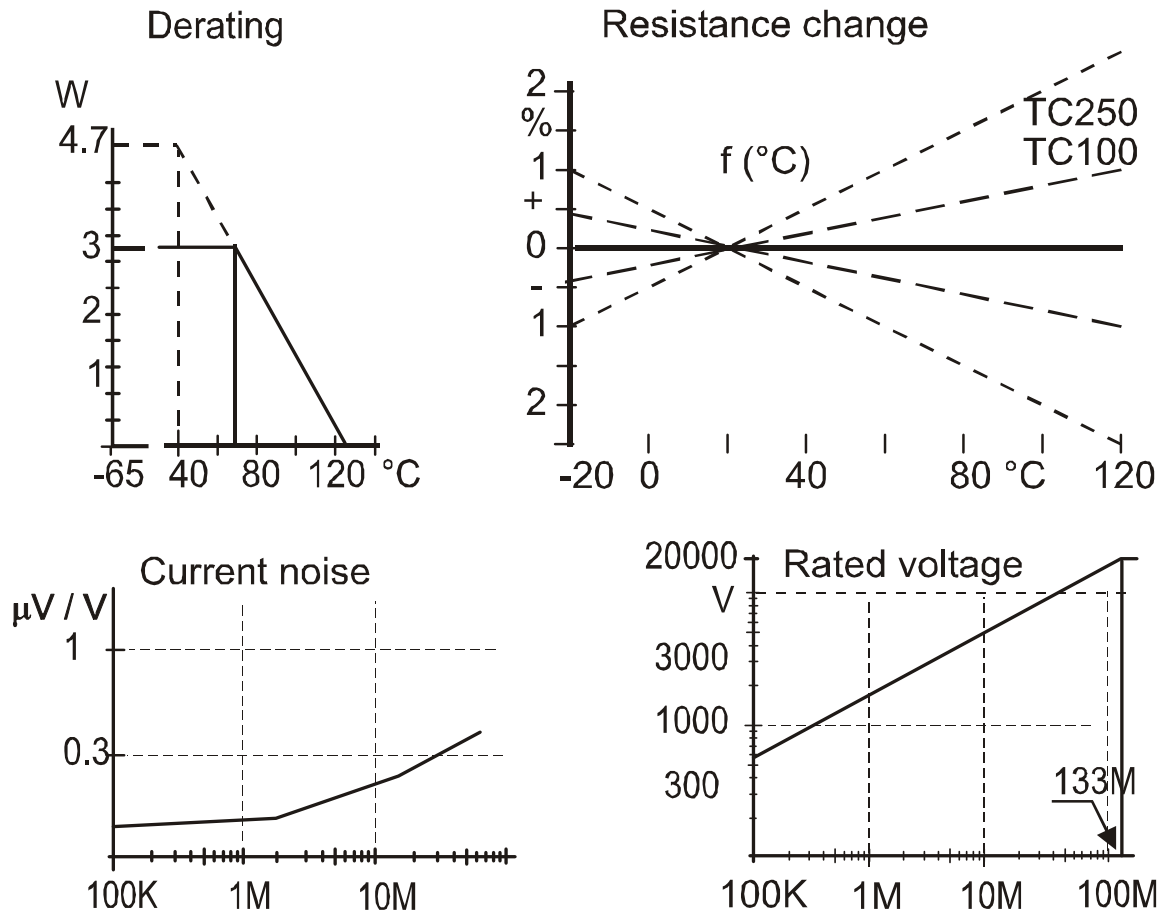
► Tests

	Test	Conditions	Requirements
4.13	Overload	5 s, $2,5 \times U_{rat}$ or $2 \times U_{max}$	$\Delta R \leq \pm (0.10\%R)$
4.18	Soldering-Resistance to heat	260 ± 5 °C, 10 s	$\Delta R \leq \pm (0.10\%R)$
4.19	Rapid change of temp.	-65 °C, 155 °C, 5x	$\Delta R \leq \pm (0.25\%R)$
4.24	Damp heat, steady	40 °C, 93% r.H., 56 d	$\Delta R \leq \pm (0.25\%R)$
4.25	Endurance at 70 °C	U_{rat} or U_{max} 1000 h	$\Delta R \leq \pm (0.25\%R)$
		U_{rat} or U_{max} 8000 h	$\Delta R \leq \pm (0.50\%R)$

Section numbers of test and performance requirements refer to IEC 60115-1.

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Rating curves



Values on stock (delivery max. 5 days)

2M	1%	10M	1%	100M	1%	1G	5%
		20M	1%	200M	2%	2G	5%
		30M	1%	300M	2%		
4M	1%	40M	1%	400M	2%	4G	10%
		50M	1%	500M	2%		
		60M	1%	600M	5%	10G	10%
		80M	1%	800M	5%	20G	10%

Order examples

CS 009 10G 10%

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type rated resistance tolerance

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