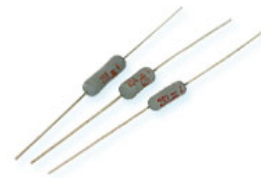


**Precision Power Wirewound Resistor**  
**Axial, Ceramic rod**  
**Flame retardant coating**



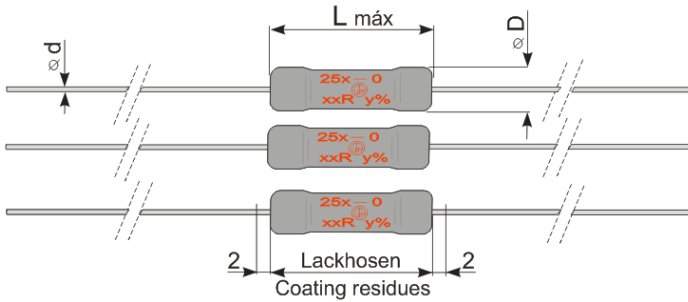
## ELECTRICAL SPECIFICATIONS

Type		CR 251	CR 252	CR 253	CR 254	CR 255	CR 256	CR 257	CR 258	CR 259
<u>Nominal Power rating</u>	P <sub>40</sub>	1,1	2,0	2,5	3,0	3,5	4,0	5,0	5,5	7,2
	P <sub>70</sub>	1,0	1,8	2,3	2,7	3,2	3,6	4,5	5,0	6,5
<u>Resistance range</u>	[Ω]	See next page (higher values upon request)								
<u>E-Series</u>		E24								
<u>Tolerances</u>	± [%]	Rmin. ...Rmax.: ±5, ±2, ±1; R ≥ 1R: ±0,5								
<u>Temperature coefficient</u>	[10 <sup>-6</sup> *K <sup>-1</sup> ]	*See table below								
<u>Temperature range</u>	[°C]	-55 ... 350								
<u>Thermal resistance</u>	[KW <sup>-1</sup> ]	280	155	127	103	93	77	62	56	43
<u>Dielectric withstanding voltage</u> <i>IEC115-1 clause 4.7 (1[<i>min</i>])</i>	[V]	max 500								
<u>Max. working voltage</u>	[V] <sub>RMS</sub>	$\sqrt{P_{70} * R}$								

## PERFORMANCE DATA

<u>Derating linear</u>	[°C]	70...350 (0W)								
<u>Climatic category</u>		55/200/56								
<u>Failure Rate</u> <i>(Total, S<sub>0</sub>, max, 60% cont. lev.)</i>	[10 <sup>-9</sup> h <sup>-1</sup> ]	appr. 100 depends on value								
<u>Endurance</u> <i>IEC60115-1 clause 4.25 (P<sub>70</sub>, @ 70[°C], 1000[h])</i>	± [%]	3,0								
<u>Damp heat, steady state</u> <i>IEC115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	± [%]	1,0								
<u>Climatic sequence</u> <i>IEC115-1 clause 4.23</i>	± [%]	1,0								
<u>Terminal strength</u>	± [%]	0,2								
<u>Terminal Tensile Strength</u>	[N]	50								
<u>Resistance to soldering heat</u> <i>IEC115-1 clause 4.18 (260<sup>±5</sup>[°C], 3,5<sup>±1</sup>[s])</i>	± [%]	0,2								
<u>Solderability</u> <i>IEC 60068-2-20-T (245<sup>±5</sup>[°C], 3<sup>±0,5</sup>[s])</i>		Solder bath method (> 95% coverage)								
<u>Marking</u> <i>IEC60062</i>		Printed in clear								

**DIMENSIONS [mm]**



Type	L max	Ø D max *	Ø d
CR251-0	9,0	3,0	0,65
CR252-0	9,7	4,0	0,80
CR253-0	14,5	4,5	0,65
CR254-0	12,6	5,5	0,80
CR255-0	15,0	8,5	0,80
CR256-0	17,0	5,5	0,80
CR257-0	18,0	8,5	0,80
CR258-0	22,0	8,5	0,80
CR259-0	27,0	8,5	0,80

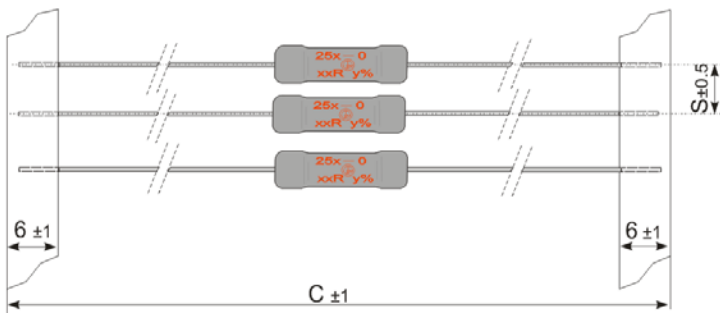
\*R ≤ 1R Dmax. +1

**TEMPERATURE COEFFICIENT**

Type	Temperature Coefficient ( -20°C to 120°C )									
	500 +400 ppm/K		400 ± 50 ppm/K		appr. +180 ppm/K		0 ± 20 ppm/K		0 ± 10 ppm/K	
251-0	-----	-----	≥ 0R01	≤ 0R024	≥ 0R027	≤ 0R091	≥ 0R1	≤ 15R	≥ 16R	≤ 220R
252-0	≥ 0R022	≤ 0R033	≥ 0R036	≤ 0R062	≥ 0R068	≤ 0R091	≥ 0R1	≥ 160R	≥ 180R	≤ 470R
253-0	≥ 0R01	≤ 0R02	≥ 0R022	≤ 0R047	≥ 0R051	≤ 0R091	≥ 0R1	≤ 47R	≥ 51R	≤ 750R
254-0	≥ 0R01	≤ 0R027	≥ 0R03	≤ 0R075	≥ 0R082	≤ 0R091	≥ 0R1	≤ 47R	≥ 51R	≤ 1K8
255-0	≥ 0R015	≤ 0R024	≥ 0R027	≤ 0R062	≥ 0R068	≤ 0R091	≥ 0R1	≤ 68R	≥ 75R	≤ 1K0
256-0	≥ 0R02	≤ 0R03	≥ 0R033	≤ 0R062	≥ 0R068	≤ 0R091	≥ 0R1	≤ 130R	≥ 150R	≤ 1K5
257-0	≥ 0R027	≤ 0R047	≥ 0R051	≤ 0R082	≥ 0R091	≤ 0R13	≥ 0R15	≤ 150R	≥ 160R	≤ 5K1
258-0	≥ 0R033	≤ 0R062	≥ 0R068	≤ 0R13	≥ 0R15	≤ 0R16	≥ 0R18	≤ 160R	≥ 180R	≤ 2K7
259-0	≥ 0R047	≤ 0R075	≥ 0R082	≤ 0R15	≥ 0R16	≤ 0R24	≥ 0R27	≤ 180R	≥ 200R	≤ 3K9

**PACKAGING**

The standard packaging for CR in axial type is taped, dimensions below.



Type	Packaging	Pieces	Pack. Code	C	S
CR251-0	Taped / Ammo pack	1000	T	65	5
CR252-0		1000		65	5
CR253-0		1000		85	10
CR254-0		1000		85	10
CR255-0		500		85	10
CR256-0		1000		85	10
CR257-0		500		85	10
CR258-0		500		85	10
CR259-0		500		85	10

**ALTERNATIVE LEAD CONFIGURATIONS**

This type CR, is also available in a different pre-forming, as shown below, other's upon request.

**SMD VERSION**

Z – form



Please check the details here <http://www.vitrohm.com/download/series/54/>

**THROUGH HOLE VERSION**

Radial	Radial Kink	Axial	Axial Kink

\*For horizontal and vertical pre-forming please consult your local sales contact.

**ORDERING EXAMPLE**

<b>CR254-0</b>	<b>5</b>	<b>T</b>	<b>150R</b>
<i>Type</i>	<i>Tolerance</i>	<i>Pack-Code</i>	<i>R-Value</i>