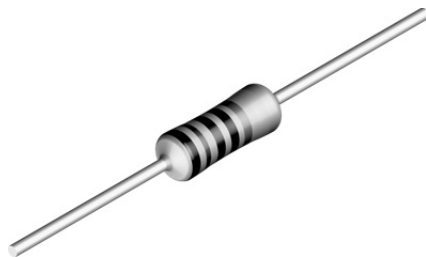


Carbon Film Resistors, Power Type



FEATURES

- Carbon film resistor with high power rating.
- Stable film structure on special ceramic
- Good overload and pulse withstanding characteristics
- Lead (Pb)-free solder contacts
- Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes
- Compatible with "Restriction of the use of Hazardous Substances" (RoHS) directive 2002/95/EC (issue 2004)
- For applications in power electronics and general purpose commercial electronics



STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{70^{\circ}\text{C}}$ W	LIMITING ELEMENT VOLTAGE MAX. $V_{\cong}$	TEMPERATURE COEFFICIENT ppm / K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
HCA0207	0.8	500	- 220 to - 1500	± 1	10R - 1M0	48
				± 2	4R7 - 2M2	48
				± 5	4R7 - 2M2	24

• Coating: green

- Marking see appropriate catalog or web page
- Additional yellow dot at the beginning of the code

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	HCA0207
Rated Dissipation at 70°C	W	0.8
Limiting Element Voltage ¹⁾	$V_{\cong}$	≤ 500
Max. Pulse Voltage	$V_{\cong}$	1050
Insulation Voltage (1 min)	V_{eff}	≥ 700
Thermal Resistance	K/W	130
Insulation Resistance	Ω	$\geq 10^{10}$
Category Temperature Range	°C	- 55 to ± 175
Failure Rate	$10^{-9}/\text{h}$	< 20
Terminal Strength, axial	N	> 50
Weight	g	0.22

¹⁾ Rated Voltage $\sqrt{P \times R}$

PART NUMBER AND PRODUCT DESCRIPTION

PART NUMBER: HCA0207001000G25

H		C		A		0		2		0		7		0		0		1		0		0		0		G		2		5					
MODEL		SIZE		SPECIAL CHARACTER		TC		VALUE		TOLERANCE		PACKING		SPECIAL																					
HCA		0207		0 = neutral		0 = neutral See datasheet for TC Value		3 digit value 1 digit multiplier		F = ± 1 % G = ± 2 % J = ± 5 %		22 = A2 25 = A5 D5 = R5		up to 2 digits 00 = standard																					
								MULTIPLIER																											
								7 = *10 ⁻³ 2 = *10 ² 8 = *10 ⁻² 3 = *10 ³ 9 = *10 ⁻¹ 4 = *10 ⁴ 0 = *10 ⁰ 5 = *10 ⁵ 1 = *10 ¹ 6 = *10 ⁶																											

PRODUCT DESCRIPTION: HCA0207 - 100D 0% A5

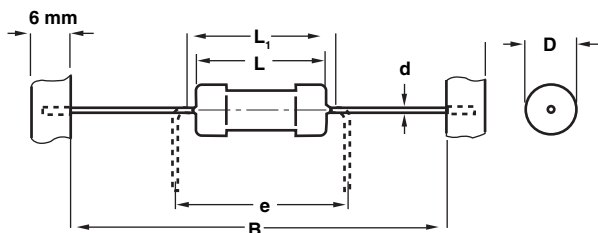
PRODUCT DESCRIPTION: HCA0207 - 100R 2% A5

HCA0207	-	100R	2 %	A5
MODEL	TC	RESISTANCE VALUE	TOLERANCE	PACKING ¹⁾
HCA0207	-	49K9 = 49.9K Ω 50R1 = 50.1 Ω	$\pm 1\%$ $\pm 2\%$ $\pm 5\%$	A2 A5 R5

¹⁾ Please refer to table PACKING, page 2.

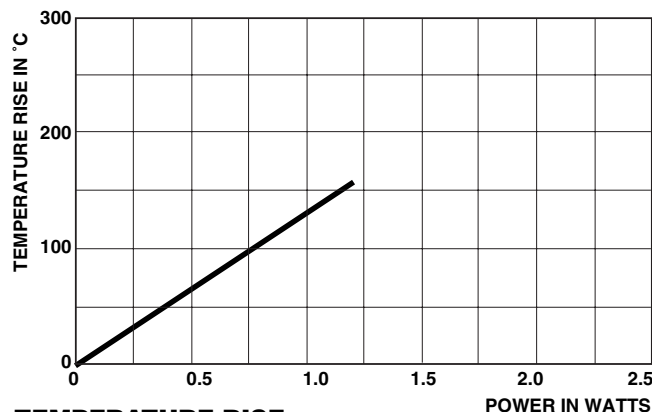
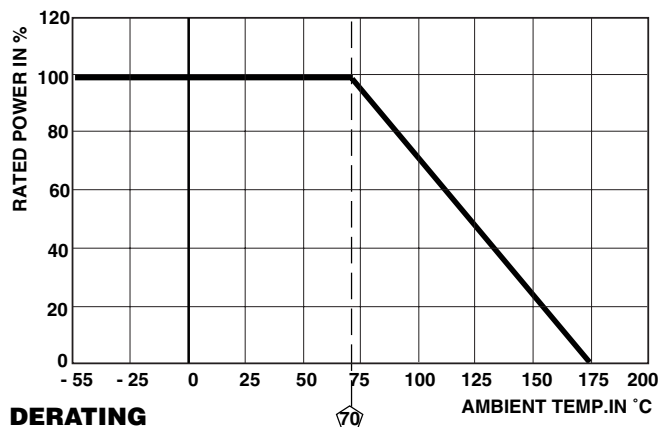
NOTE: Products can be ordered using either the Product Description or the Part Number.

DIMENSIONS



MODEL	DIMENSIONS [in millimeters]					
	D max.	L	L ₁ max	B	d	e
HCA0207	2.5 _{-0.3}	6.3 _{-0.5}	7.5	53 ±1	0.6	7.5

- Taping in acc. with IEC60286-1
- D and L measured in acc. with IEC60294
- d according to IEC60301


TEMPERATURE RISE

DERATING

PACKING						
MODEL	REEL			BOX		
	PIECES / REEL	CODE	MIN. ORDER QUANTITY PACKING UNITS	PIECES / BOX	CODE	MIN. ORDER QUANTITY PACKING UNITS
HCA0207	5000	R5	1	5000 2000	A5 A2	1 2

PERFORMANCE		
TEST	CONDITIONS OF TEST	REQUIREMENTS ¹⁾
Endurance 1000 hours at 70°C IEC 60115-1 4.25.1	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	≤ ± 2.0%
Endurance at UCT IEC60115-1 4.25.3	1000 hours at 155°C without load	≤ ± 5.0%
Overload Test IEC 60115-1 4.13	Short time overload 5 seconds at 2.5 x rated voltage or ≤ twice the limiting element voltage	≤ ± 0.5%
Thermal Shock IEC 60115-1 4.19, IEC 60068-2-14	Rapid change between upper and lower category temperature	≤ ± 0.25%
Climatic Sequence IEC 60115+1 4.23	Dry heat, damp heat cyclic, cold, low air pressure	≤ ± 2.0%
Damp Heat Steady State IEC 60115-1 4.24, IEC 60068-2-3	56 days at 40°C and 93% relative humidity	≤ ± 2.0%
Resistance to Soldering Heat IEC 60115-1 4.18, IEC 60068-2-20	10 seconds at 260°C solder bath temperature	≤ ± 0.25%
Robustness of Terminations IEC 60115-1 4.16, IEC 60068-2-21	Tensile, bending and torsion	≤ ± 0.25%
Vibration IEC 60115-1 4.22	0.75mm or 10g, 10Hz-500Hz 6 hours	≤ ± 0.25%

¹⁾ For a resistance range of 10R to 1MΩ

APPLICABLE SPECIFICATIONS
• CECC40000 / 40100 / EN 140000 / IEC 60115-1



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