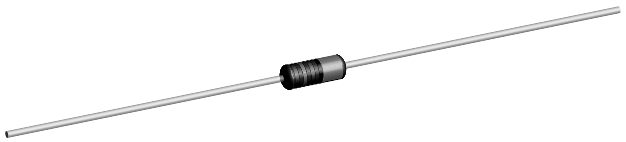
Metal Film Leaded Resistors, Industrial, ± 2 % and ± 5 % Tolerance



FEATURES

- Dual power rating:
  P_{70} = 0.25 W with 1.5 % stability
  P_{70} = 0.50 W with 2.0 % stability
- ± 2 % and ± 5 % tolerance
- Temperature coefficient: ± 100 ppm/K and ± 200 ppm/K
- Tape and reel packaging for automatic insertion (52.4 mm inside tape spacing per EIA-296-E)
- Flame retardant epoxy conformal coating (red brown color)
- Standard 4 band color code marking for ease of identification after mounting
- Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

PRODUCT	POWER RATING P_{70} W	LIMITING ELEMENT VOLTAGE MAX. V≅	TEMPERATURE COEFFICIENT ± ppm/K	TOLERANCE ± %	RESISTANCE RANGE Ω	E-SERIES
CCF07	0.25	250	100	2, 5	10 to 1M	E24
CCF07	0.5	250	100	2, 5	10 to 1M	E24
CCF07	0.25	250	200	5	1.1M to 2M	E24
CCF07	0.5	250	200	5	1.1M to 2M	E24

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CCF07
Rated Dissipation, P_{70}	W	0.25/0.5
Maximum Working Voltage, $U_{max.}$	V≅	≤ 250
Insulation Voltage (1 min)	V_{eff}	500
Dielectric Strength	V_{AC}	450
Insulation Resistance	Ω	≥ 10^{11}
Operating Temperature Range	°C	-65 to +150
Terminal Strength (pull test)	lb	2
Weight	g	0.35 max.

PART NUMBER AND PRODUCT DESCRIPTION

PART NUMBER: CCF07240RGKE36

C	C	F	0	7	2	4	0	R	G	K	E	3	6			

PRODUCT	RESISTANCE VALUE	TOLERANCE CODE	TEMPERATURE COEFFICIENT	PACKAGING	SPECIAL
CCF07	**R** = decimal **K** = thousand **M** = million **10R0** = 10 Ω **680K** = 680 kΩ **2M00** = 2.0 MΩ	**G** = ± 2 % **J** = ± 5 %	**K** = 100 ppm/K **N** = 200 ppm/K	**E36** = lead (Pb)-free T/R (5000 pieces)	**Blank** = standard (dash number) (up to 3 digits) From **1 to 999** as applicable

For technical questions, contact: filmresistorsleaded@vishay.com

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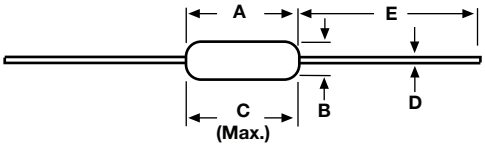
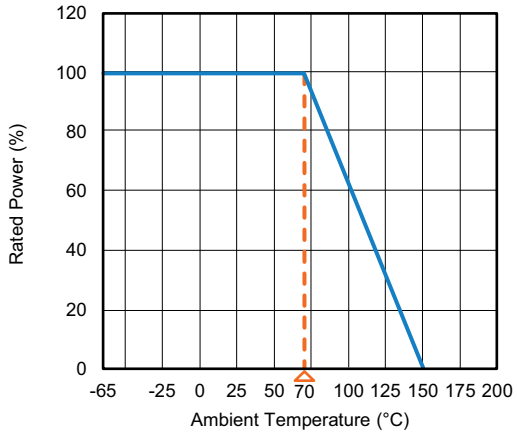
DIMENSIONS in inches (millimeters)



PRODUCT	A	B	C (Max.)	D	E
CCF07	0.245 ± 0.020 (6.22 ± 0.51)	0.090 ± 0.008 (2.29 ± 0.20)	0.295 (7.5)	0.022 ± 0.002 (0.58 ± 0.05)	1.100 ± 0.040 (27.94 ± 1.02)

DERATING



MARKING

The nominal resistance and tolerance are marked on the resistor using four colored bands in accordance with IEC 60062, marking codes for resistors and capacitors.

RESISTANCE VALUES

Vishay CCF07 is available in the standard 24 resistance values per decade. Values are obtained from the following decade table by multiplying by powers of 10. As an example: 24 can represent 24 Ω, 240 Ω, 2.4 kΩ, 24 kΩ or 240 kΩ.

10	18	33	56
11	20	36	62
12	22	39	68
13	24	43	75
15	27	47	82
16	30	51	91

PERFORMANCE

TEST [1]	MAX. ΔR (Typical Test Lots)
Thermal Shock	± 1.0 %
Short Time Overload	± 0.5 %
Low Temperature Operation	± 0.5 %
Moisture Resistance	± 1.5 %
Resistance to Soldering Heat	± 0.5 %
Shock/Bump	± 0.5 %
Vibration	± 0.5 %
Terminal Strength	± 0.5 %
Dielectric Withstanding Voltage	± 0.5 %
Life	± 1.5 % [2]

Notes

[1] Test specifications as per IEC 60115-1

[2] Life ΔR is ± 2.0 % for 1/2 W rating

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