



# Wirewound Resistors, Commercial Power, Axial Lead



## FEATURES

- High performance for low cost
- Auto insertable
- High temperature coating for environmental protection
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

## APPLICATIONS

Kitchen appliances:

- Percolators, blenders, mixers, ranges, toasters, deep fryers

Entertainment and consumer devices:

- Radios, televisions
- Computers and power supplies

STANDARD ELECTRICAL SPECIFICATIONS				
GLOBAL MODEL	POWER RATING $P_{25\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE (1) $\Omega$	TOLERANCE $\pm$ %	WEIGHT (typical) g
CA0001	1.0	0.1 to 1K	5, 10	0.65
CA0002	2.0	0.1 to 1K	5, 10	0.80

**Note**

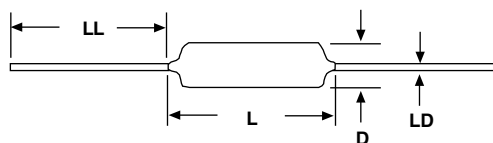
(1) E24 decade values are available, although others may be available upon request

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	CA HIGH VOLUME RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^\circ\text{C}$	$\pm$ 350
Short Time Overload	-	5 x rated power for 5 s
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Dielectric Withstanding Voltage	$V_{AC}$	350
Operating Temperature Range	$^\circ\text{C}$	-65 to +275
Terminal Strength (Minimum)	lb	10

GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering Example: CA000150R00JE66																	
C	A	0	0	0	1	5	0	R	0	0	J	E	6	6			
GLOBAL MODEL (See Standard Electrical Specifications table / Global Model column for options)				VALUE R = decimal K = thousand R1500 = 0.15 $\Omega$ 1K000 = 1000 $\Omega$			TOLERANCE J = $\pm$ 5.0 % K = $\pm$ 10.0 %			PACKAGING E66 = lead (Pb)-free, tape/reel				SPECIAL (Dash number) (Up to 3 digits) From 1 to 999 as applicable			



## DIMENSIONS



GLOBAL MODEL	DIMENSIONS in inches [millimeters]			
	L ± 0.040 [1.0]	D ± 0.020 [0.5]	LD ± 0.002 [0.05]	LL ± 0.079 [2.0]
CA0001	0.354 [9]	0.138 [3.5]	0.024 [0.6]	1.024 [26]
CA0002	0.453 [11.5]	0.177 [4.5]	0.031 [0.8]	1.378 [35]

## MATERIAL SPECIFICATIONS

**Element:** copper-nickel alloy or nickel-chrome alloy, depending on resistance value

**Core:** ceramic

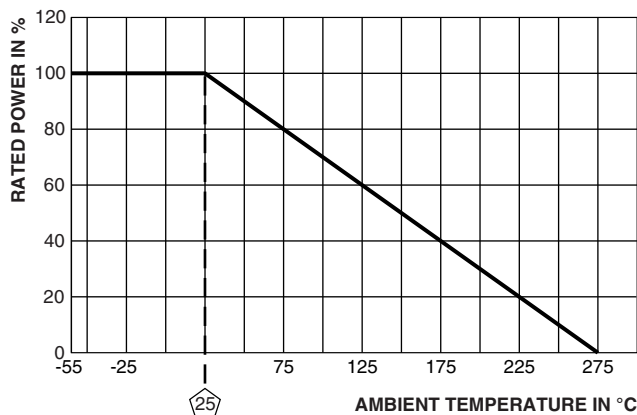
**Coating:** special high temperature material

**Terminals:** tin plated copper

**End Caps:** tin plated steel

**Part Marking:** E24 color bands

## DERATING



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	-55 °C to +275 °C, 5 cycles, 30 min dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± (1.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	350 V <sub>AC</sub> for 1 min	± (2.0 % + 0.05 Ω) ΔR
Low Temperature Operation	-65 °C, full rated working voltage for 45 min	± (3.0 % + 0.05 Ω) ΔR
Humidity	75 °C, 90 % - 100 % RH, 240 h	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 h at rated power, +25 °C, 1.5 h "ON", 0.5 h "OFF"	± (5.0 % + 0.05 Ω) ΔR
Terminal Strength	10 pounds for 30 s; body twisted about axis, 3 x 360° rotations	± (2.0 % + 0.05 Ω) ΔR
Resistance to Solder Heat	Terminal immersed 3.5 s in molten solder at 1/8" to 3/16" from body	± (1.0 % + 0.05 Ω) ΔR



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