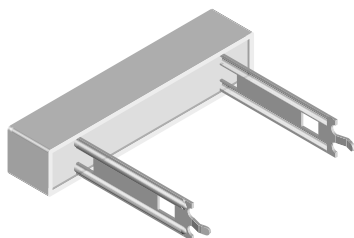


## Wirewound Resistors, Commercial Power, Radial Terminals



### FEATURES

- Direct mounting on printed circuit board
- Circuit board lock-in mounting tabs
- High performance for low cost
- Meets or exceeds requirements of EIA Standard RS-344
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package


**RoHS\***  
COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{40\text{ }^{\circ}\text{C}}$ W	RESISTANCE RANGE $\Omega$ $\pm 5\%, \pm 10\%$	WEIGHT (TYPICAL) g
CPR03	CPR-3	3	0.1 - 1K	5.6
CPR05	CPR-5	5	0.1 - 1K	6.6
CPR07	CPR-7	7	0.1 - 1.429K	9.4
CPR10	CPR-10	10	0.1 - 2K	10.0
CPR15	CPR-15	15	0.1 - 2K	20.3
CPR20	CPR-20	20	0.15 - 2.855K	25.6

### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CPR RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	$\pm 600$ below 1.0 $\Omega$ , $\pm 300$ 1.0 $\Omega$ and above
Short Time Overload	-	5 x rated power for 5 seconds
Terminal Strength	lb	10 minimum
Dielectric Withstanding Voltage	$V_{AC}$	1000
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	$^{\circ}\text{C}$	- 65/+ 275

#### Note

- Wirewound CPR resistors can reliably function as a fuse and as a resistor. Such components involve compromise between fusing and resistive functions; therefore, each design should be tailored to the application to ensure optimum performance. Contact factory by using the e-mail address at the bottom of this page for design assistance.

### GLOBAL PART NUMBER INFORMATION

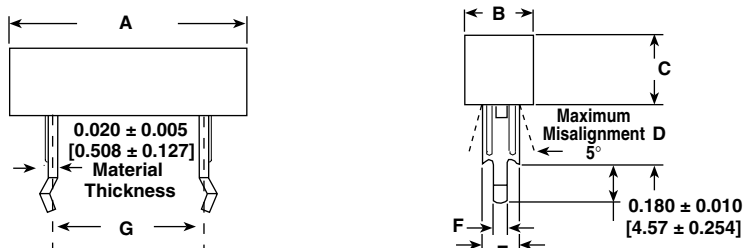
New Global Part Numbering: CPR0515R00JE14 (preferred part number format)

C	P	R	0	5	1	5	R	0	0	J	E	1	4			
GLOBAL MODEL			VALUE			TOLERANCE			PACKAGING				SPECIAL			
CPR03 CPR05 CPR07 CPR10 CPR15 CPR20			R = Decimal K = Thousand R1500 = 0.15 Ω 1K500 = 1500 Ω			H = ± 3.0 % J = ± 5.0 % K = ± 10.0 %			E14 = Lead (Pb)-free bulk E31 = Lead (Pb)-free four layer bulk E10 = Lead (Pb)-free foam pack  B14 = Tin/lead bulk B31 = Tin/lead four layer bulk F10 = Tin/lead foam pack				(Dash Number) (up to 3 digits) From 1 - 999 as applicable			

Historical Part Number example: CPR-5 15  $\Omega$  5 % B14 (will continue to be accepted)

CPR-5	15 $\Omega$	5 %	B14
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

\* Pb containing terminations are not RoHS compliant, exemptions may apply

**DIMENSIONS** in inches [millimeters]


GLOBAL MODEL	DIMENSIONS in inches [millimeters]						
	A ± 0.040 [1.02]	B ± 0.031 [0.787]	C ± 0.031 [0.787]	D + 0.080 [2.03] - 0.040 [1.02]	E ± 0.012 [0.305]	F ± 0.008 [0.203]	G ± 0.060 [1.52]
CPR03	0.906 [23.01]	0.375 [9.53]	0.375 [9.53]	0.394 [10.01]	0.287 [7.29]	0.055 [1.40]	0.500 [12.70]
CPR05	1.060 [26.92]	0.375 [9.53]	0.360 [9.14]	0.394 [10.01]	0.287 [7.29]	0.055 [1.40]	0.590 [14.99]
CPR07	1.398 [35.51]	0.375 [9.53]	0.360 [9.14]	0.984 [24.99]	0.287 [7.29]	0.055 [1.40]	0.886 [22.50]
CPR10	1.888 [47.96]	0.375 [9.53]	0.360 [9.14]	0.984 [24.99]	0.287 [7.29]	0.055 [1.40]	1.380 [35.05]
CPR15	1.888 [47.96]	0.500 [12.70]	0.500 [12.70]	1.180 [29.97]	0.394 [10.01]	0.106 [2.69]	1.280 [32.51]
CPR20	2.498 [63.45]	0.500 [12.70]	0.500 [12.70]	1.180 [29.97]	0.394 [10.01]	0.106 [2.69]	1.870 [47.50]

**MATERIAL SPECIFICATIONS**

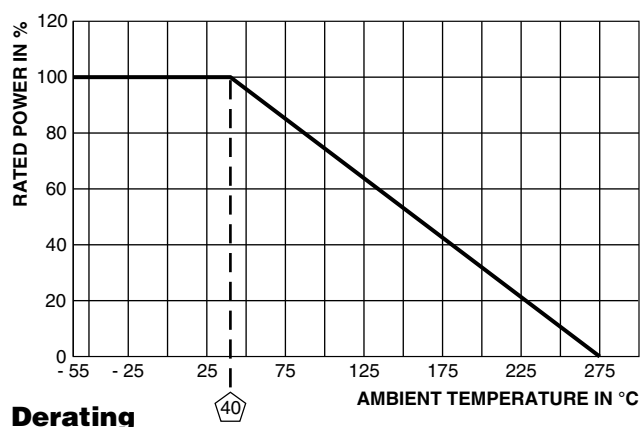
**Element:** Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

**Core:** Woven fiberglass

**Body:** Steatite ceramic case with inorganic potting compound

**Terminals:** Tin/lead plated CRS (Lead (Pb)-free will be 100 % tin)

**Part Marking:** DALE, Model, Wattage, Value, Tolerance, Date Code



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS (EIA RS-344)
Thermal Shock	- 55 °C to + 275 °C, 5 cycles, 30 minute dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 seconds	± (4.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	1000 Vrms for one minute	± (2.0 % + 0.05 Ω) ΔR
Low Temperature Operation	- 65 °C, full rated working voltage for 45 minutes	± (3.0 % + 0.05 Ω) ΔR
Humidity	75 °C, 90 % - 100 % RH, 240 hours	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 hours at rated power, + 40 °C, 1.5 hours "ON", 0.5 hours "OFF"	± (10.0 % + 0.05 Ω) ΔR
Terminal Strength	10 pounds in axial direction for 30 seconds	± (2.0 % + 0.05 Ω) ΔR
Resistance to Solder Heat	Terminal immersed 3.5 seconds in molten solder at 1/8" to 3/16" from body	± (4.0 % + 0.05 Ω) ΔR



### Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.