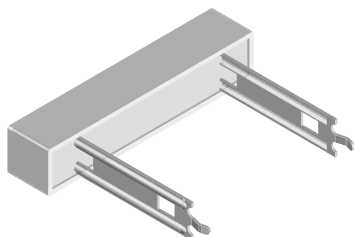




Wirewound Resistors, Commercial Power, Radial Terminals



Please reference the Vishay Dale closest equivalent: CPR High Volume (www.vishay.com/doc?30261).

Notes

- There may be slight differences between the CPR product and the CPR High Volume product.
- See the cross-reference file for a complete list of differences and part number crosses: www.vishay.net/files/Cross-Reference%20Data-without%20PCN%20-%20%20PCN-DR-020-2015%20Rev%200.pdf.

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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

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

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	CPR RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^\circ\text{C}$	± 300 for 1.0 Ω and above; ± 600 for less than 1.0 Ω
Short Time Overload	-	5 x rated power for 5 s
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 to +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

Global Part Numbering example: **CPR0515R00JE14**

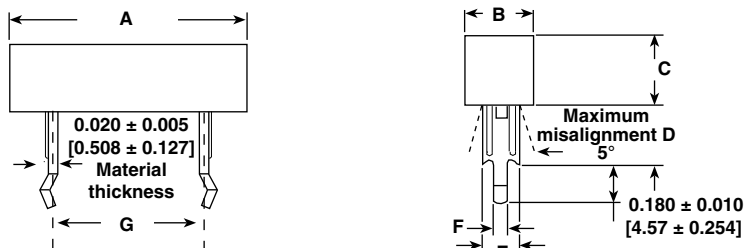
C	P	R	0	5	1	5	R	0	0	J	E	1	4			
GLOBAL MODEL			VALUE			TOLERANCE		PACKAGING				SPECIAL				
CPR03 CPR05 CPR07 CPR10 CPR15 CPR20			R = decimal K = thousand R1500 = 0.15 Ω 1K500 = 1500 Ω			H = $\pm 3.0 \%$ J = $\pm 5.0 \%$ K = $\pm 10.0 \%$		E14 = lead (Pb)-free bulk ⁽¹⁾ E31 = lead (Pb)-free four layer bulk ⁽¹⁾ E10 = lead (Pb)-free foam pack B14 = tin/lead bulk ⁽¹⁾ B31 = tin/lead four layer bulk ⁽¹⁾ F10 = tin/lead foam pack				(dash number) (up to 3 digits) from 1 to 999 as applicable				
Historical Part Numbering example: CPR-5 15 Ω 5 % B14																
CPR-5			15 Ω			5 %		B14								
HISTORICAL MODEL			RESISTANCE VALUE			TOLERANCE CODE		PACKAGING								

Note

⁽¹⁾ Only for 3 W and 5 W sizes.



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

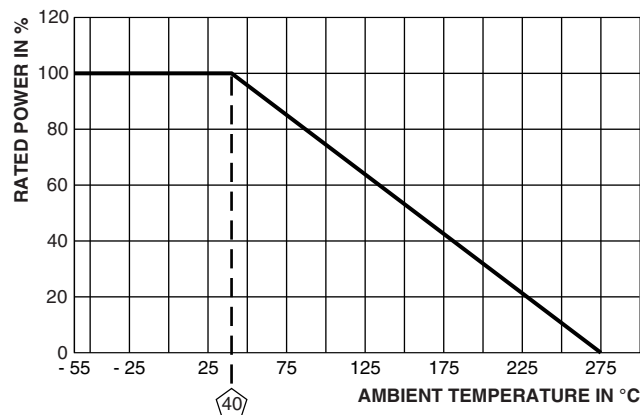
Core: woven fiberglass

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

DERATING



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS (EIA RS-344)
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	± (4.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	1000 V _{RMS} 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 % to 100 % RH, 240 h	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 h at rated power, +40 °C, 1.5 h "ON", 0.5 h "OFF"	± (10.0 % + 0.05 Ω) ΔR
Terminal Strength	10 pounds in axial direction for 30 s	± (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	± (4.0 % + 0.05 Ω) ΔR



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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 in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Wirewound Resistors - Through Hole category](#):

Click to view products by [Vishay manufacturer](#):

Other Similar products are found below :

[75822-2K4](#) [90J56R](#) [PW10-39R-5%](#) [ALSR1-20](#) [EP3WS47RJ](#) [RWR81S1000BRB12](#) [RWR81S12R4FRB12](#) [RWR81SR511FRB12](#)
[RWR81SR619FRBSL](#) [RWR89S10R0FRB12](#) [RWR89S9310FPB12](#) [27J1K0](#) [93J62RE](#) [AC10000002208JAB00](#) [1HJ-25](#) [FSQ5WR47J](#)
[FW10A33R0JA](#) [25J39K](#) [25J5R0-B](#) [25W1D0](#) [272-303-JBW](#) [280-PRM5-150-RC](#) [CP0005270R0JE1491](#) [CPCC0510R00JE32](#)
[CPCC051R000JB31](#) [CPW052K500JE143](#) [CPW05700R0JE143](#) [C1010RJL](#) [CA000210R00JE14](#) [VPR5F1500](#) [RS02B887R0FE73](#)
[RWR74SR604FRB12](#) [RWR84S1001FRB12](#) [RWR84S20R0FSBSL](#) [RWR89S6190FSB12](#) [CPW055R000JB143](#) [ULW5-39R0JT075](#) [W31-](#)
[R047JA1](#) [VP25K-120](#) [VC3D900](#) [ULW5-68RJT075](#) [65888-3R3](#) [CB5JB10R0](#) [RWR80N3400FSB12](#) [RWR81S1000FRB12](#)
[RWR81S1000FSB12](#) [RWR89S6R81FRB12](#) [RWR89N30R1FRB12](#) [RWR81S4R99FPB12](#) [RWR74S4R02FRRSL](#)