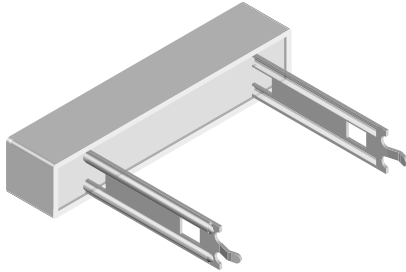


Wirewound Resistors, Commercial Power, Radial Terminals



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

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{40^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω $\pm 5\%, \pm 10\%$	WEIGHT (Typical) g
CPR-3	3	0.1 - 1k	5.6
CPR-5	5	0.1 - 1k	6.6
CPR-7	7	0.1 - 1.429k	9.4
CPR-10	10	0.1 - 2k	10.0
CPR-15	15	0.1 - 2k	20.3
CPR-20	20	0.15 - 2.855k	25.6

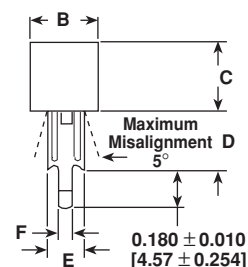
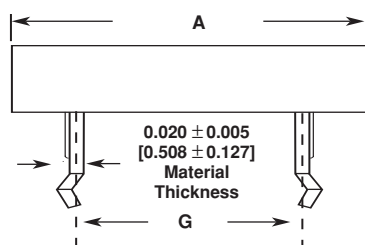
TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CPR RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	± 600 below 1.0 Ω , ± 300 1.0 Ω 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.

ORDERING INFORMATION

CPR-10 MODEL	100 Ω RESISTANCE Ω	5% TOLERANCE $\pm \%$
-----------------	----------------------------------------	-----------------------------

DIMENSIONS


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]
CPR-3	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]
CPR-5	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]
CPR-7	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]
CPR-10	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]
CPR-15	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]
CPR-20	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

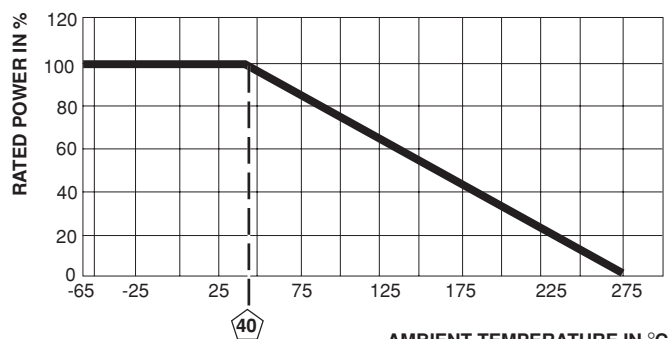
Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: Woven fiberglass

Body: Steatite ceramic case with inorganic potting compound

Terminals: Tin/lead plated cold roll steel

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