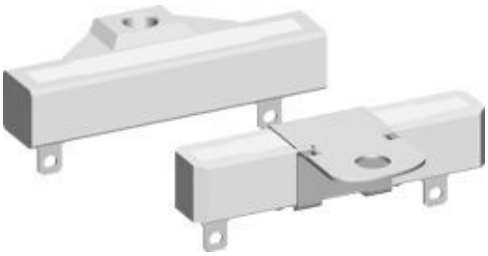
Wirewound Resistors, Commercial High Power, Quick Connect Terminals



FEATURES

- Can be purchased with or without brackets installed
- Quick connect terminals
- High power ratings
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package
- Compliant to RoHS Directive 2002/95/EC

Pb-free RoHS COMPLIANT GREEN (5-2008)**

APPLICATIONS

The CP resistors are suited for use in high ambient temperatures and also where ease of mounting and electrical connections are to be made with quick connect terminals. Model CP0050 is particularly recommended for automotive electronic ignition ballast, appliance and motor ballasts and two-speed fans.

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{40\,°C}$ W	RESISTANCE RANGE Ω ± 10 % standard, ± 5 % available	WEIGHT (typical) g
CP015B	CP-15B	15	0.1 to 288	21.5
CP020B	CP-20B	20	0.1 to 460	27.5
CP026B (1)	CP-26B (1)	25	0.12 to 570	44.0
CP26SM	CP-26SM	25	0.12 to 570	56.9
CP30SM	CP-30SM	30	0.32 to 623	57.5
CP050B (1)	CP-50B (1)	50	0.16 to 740	90.0
CP050B...1 (1)	CP-50B-1 (1)	50	0.16 to 740	90.0

Note

(1) To order the CP026B, CP050B and CP050B...1 without brackets, remove the B from model number (CP0026, CP0050 and CP0050...1).

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CP QUICK CONNECT CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 600 below 1.0 Ω, ± 300 1.0 Ω and above
Short Time Overload	-	10 × rated power for 5 s
Operating Temperature Range	°C	- 65 to + 275
Dielectric Withstanding Voltage	V_{AC}	1000
Maximum Working Voltage	V	$(P \times R)^{1/2}$

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CP050B15R00JB141 (preferred part number format)

C	P	0	5	0	B	1	5	R	0	0	J	B	1	4	1		

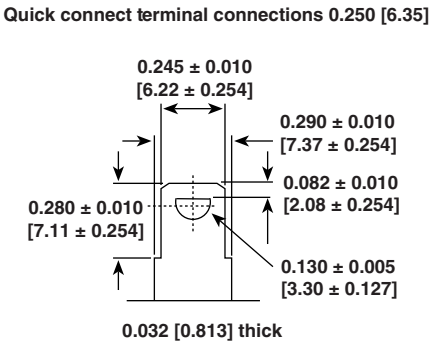
GLOBAL MODEL	VALUE	TOLERANCE	PACKAGING	SPECIAL
(See Standard Electrical Specifications Global Model column for options)	**R** = Decimal **K** = Thousand **R1500** = 0.15 Ω **1K500** = 1500 Ω	**H** = ± 3.0 % **J** = ± 5.0 % **K** = ± 10.0 %	**B14** = Lead (Pb)-free, bulk **B31** = Lead (Pb)-free, four layer bulk	(Dash Number) (up to 3 digits) From **1 to 999** as applicable

Historical Part Number Example: CP-50B-1 15 Ω 5 % B14 (will continue to be accepted)

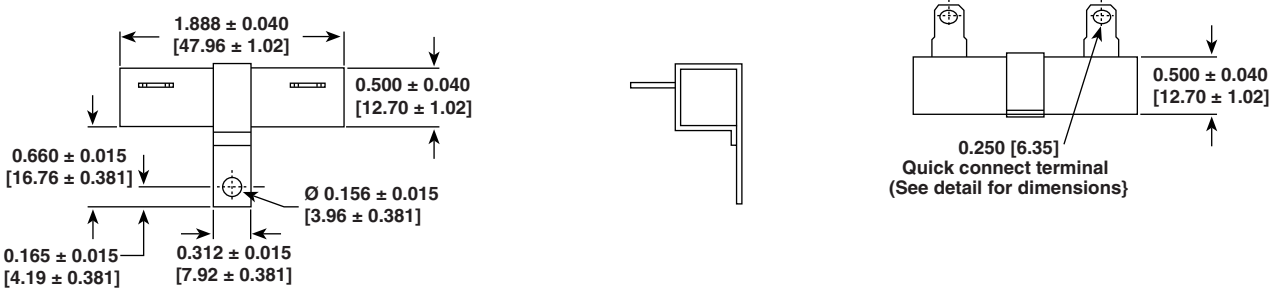
CP-50B-1	15 Ω	5 %	B14
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

** Please see document “Vishay Material Category Policy”: www.vishay.com/doc?99902

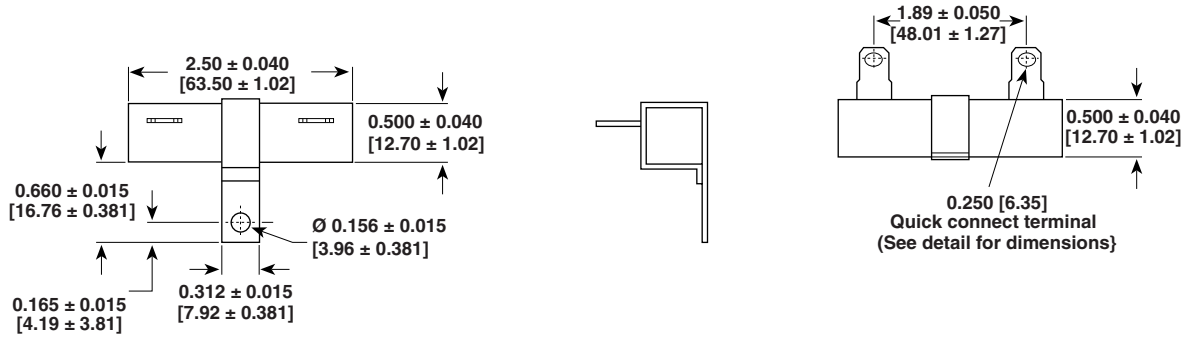
DIMENSIONS in inches [millimeters]



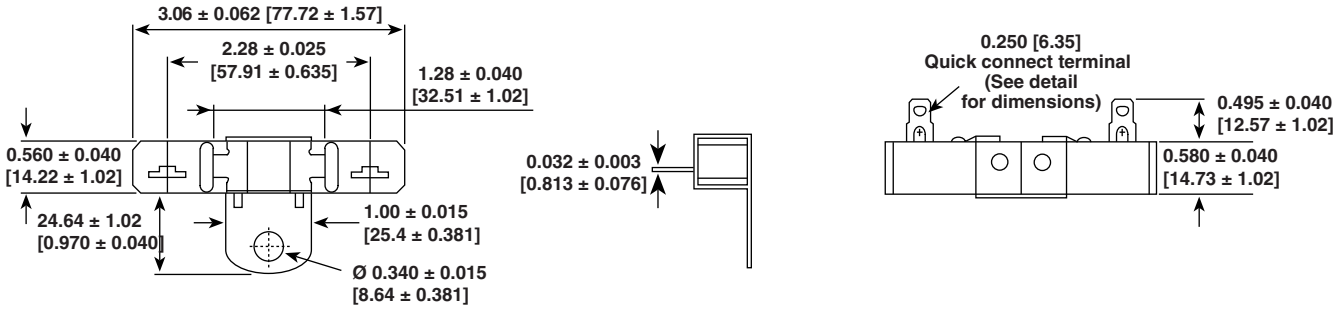
MODEL CP015B



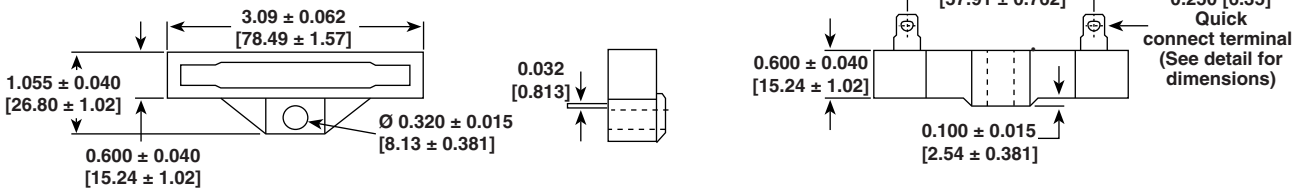
MODEL CP020B



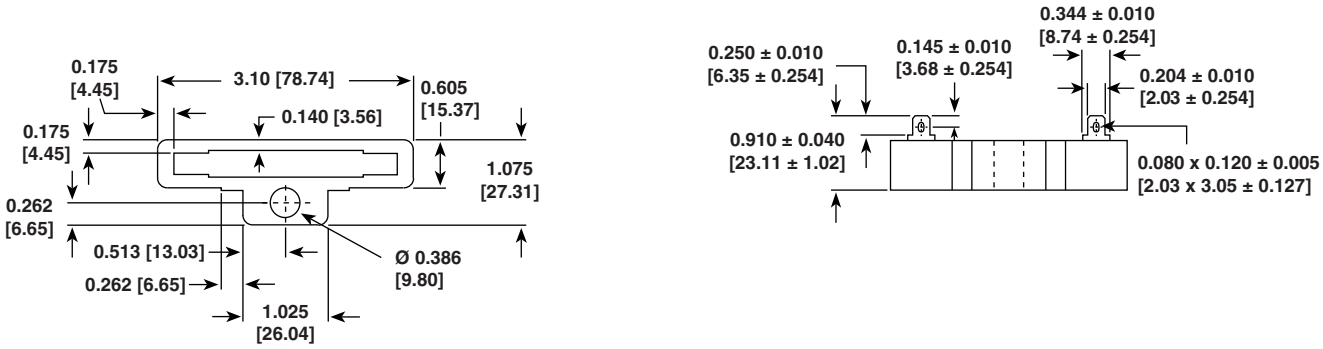
MODEL CP0026 AND CP026B



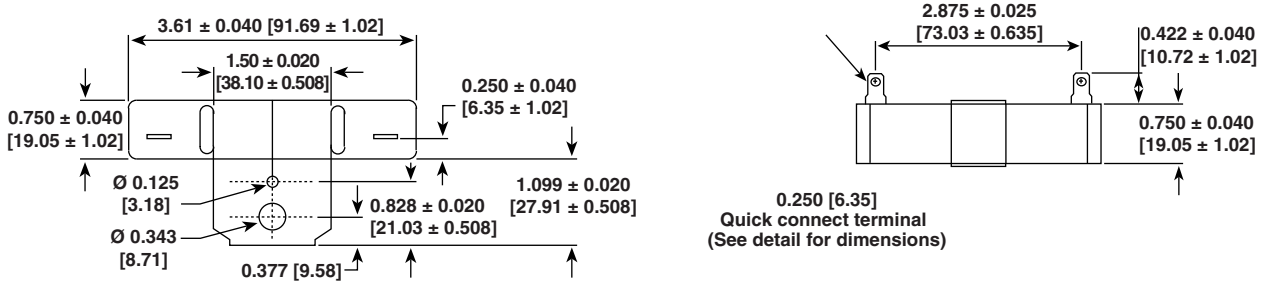
MODEL CP26SM



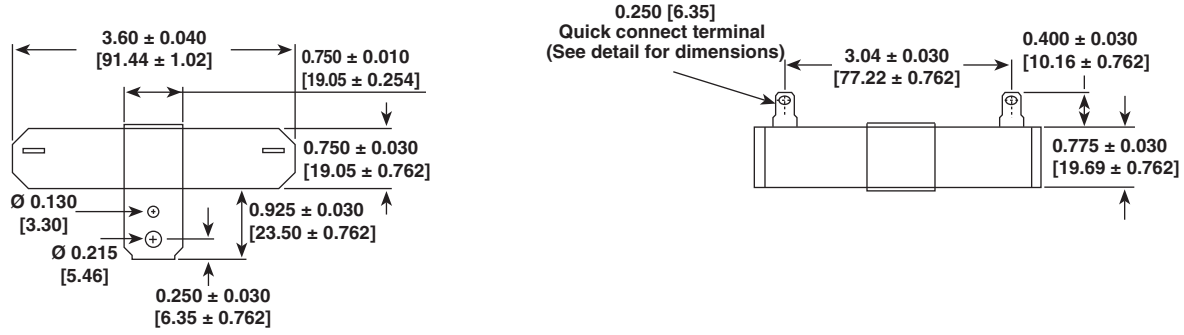
MODEL CP30SM

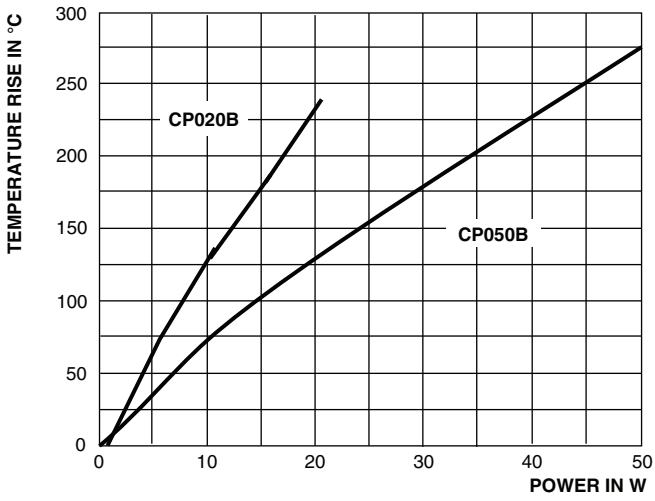


MODEL CP0050 AND CP050B

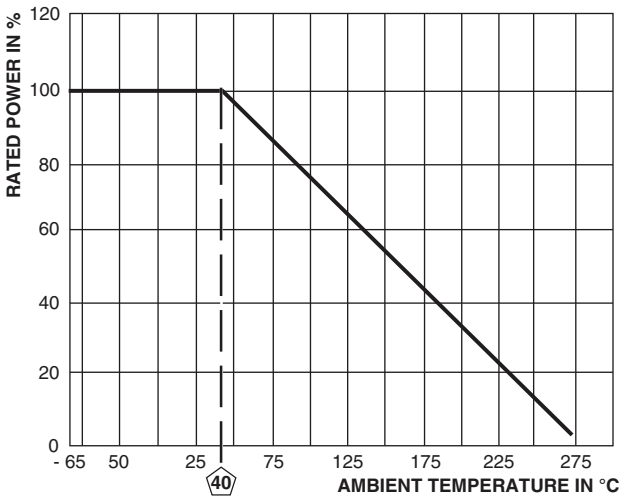


MODEL CP0050...1 AND CP050B...1





Temperature Rise



Derating

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: Bare brass (CP30SM is tin plated steel)

Bracket: Aluminum

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 min dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	10 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 for 30 s	± (2.0 % + 0.05 Ω) ΔR

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