

Wirewound Resistors, Commercial Power, Current Sense, Low Value


FEATURES

- Open air design
- Complete welded construction
- Low temperature coefficient
- Extremely low resistance values
- Low inductance
- AEC-Q200 qualified available ⁽¹⁾
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912


Notes

* 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
⁽¹⁾ Flame retardance test may not be applicable to some resistor technologies

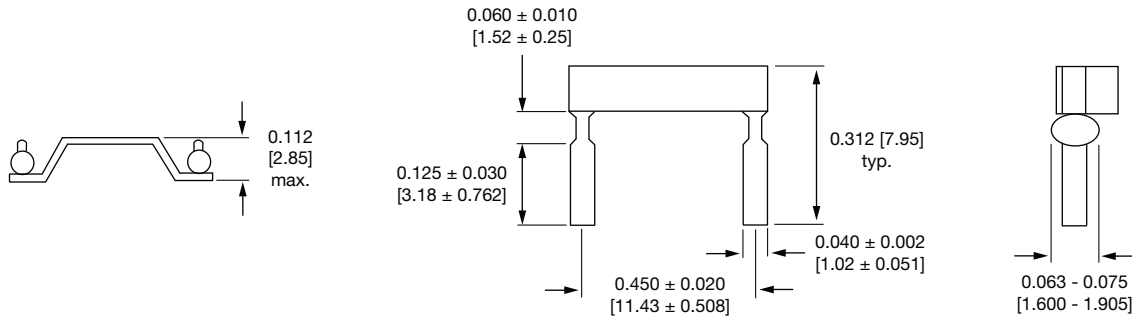
STANDARD ELECTRICAL SPECIFICATIONS				
GLOBAL MODEL	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	RESISTANCE VALUE ⁽¹⁾ Ω	TOLERANCE \pm %	WEIGHT (typical) g
CP0002...13	1	0.005 to 0.03	1, 5	0.2

Note

⁽¹⁾ Other values available, contact factory

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	CP0002...13
Temperature Coefficient	ppm/ $^\circ\text{C}$	Element = \pm 25; Component = \pm 140
Operating Temperature	$^\circ\text{C}$	-55 to +275

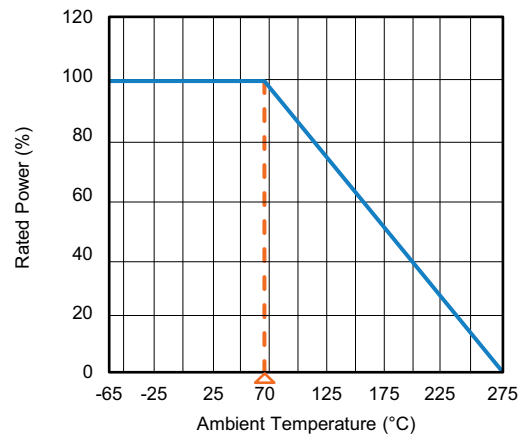
GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering Example: CP00026L800FE5113																	
C	P	0	0	0	2	6	L	8	0	0	F	E	5	1	1	3	
GLOBAL MODEL CP0002		VALUE L = m Ω (below 0.01 Ω) R = decimal 5L000 = 0.005 Ω R0100 = 0.01 Ω				TOLERANCE CODE F = \pm 1.0 % J = \pm 5.0 %			PACKAGING E51 = lead (Pb)-free, bulk S51 = tin / lead, bulk			SPECIAL 13					

DIMENSIONS in inches [millimeters]

MECHANICAL SPECIFICATIONS

Terminal Strength: 10 pounds minimum

Construction: a completely welded assembly using a premium quality copper-nickel element and tinned copper terminals.

Packaging: layered bulk packaging, 2000 pcs/bag sealed

DERATING


PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± (0.5 % + 0.0005 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± (0.5 % + 0.0005 Ω) ΔR
Low Temperature Operation	-65 °C for 24 h	± (0.5 % + 0.0005 Ω) ΔR
High Temperature Exposure	1000 h at +170 °C	± (1.0 % + 0.0005 Ω) ΔR
Bias Humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± (0.5 % + 0.0005 Ω) ΔR
Mechanical Shock	100 g's for 6 ms, 5 pulses	± (0.5 % + 0.0005 Ω) ΔR
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 % + 0.0005 Ω) ΔR
Load Life	1000 h at rated power, +70 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 % + 0.0005 Ω) ΔR
Resistance to Solder Heat	+260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± (0.5 % + 0.0005 Ω) ΔR
Moisture Resistance	MIL-STD-202, method 106, 0 % power, 7a and 7b not required	± (0.5 % + 0.0005 Ω) ΔR



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