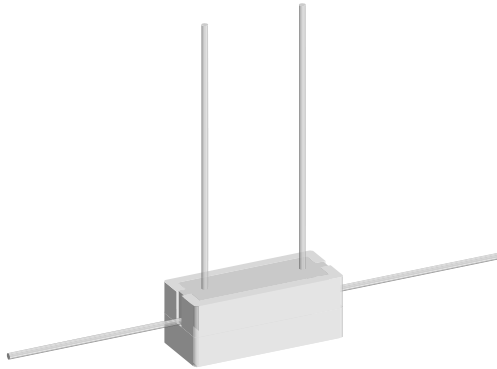


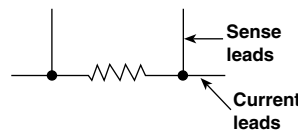
Wirewound Resistors, Commercial Power, Four Terminal, Low Value


FEATURES

- Low inductance
- Extremely low resistance values
- Current sensing
- Low temperature coefficients
- High power to size ratio
- Ceramic cases are available with circuit board stand-offs (designated with a -3 model ending)
- Superior surge capability
- Complete welded construction
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package
- Compliant to RoHS Directive 2002/95/EC


Notes

- * Pb containing terminations are not RoHS compliant, exemptions may apply
- ** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

SCHEMATIC


| STANDARD ELECTRICAL SPECIFICATIONS | | | | | |
|------------------------------------|------------------|--------------------------------------------------|------------------------------|-----------------------|-----------------------|
| GLOBAL MODEL | HISTORICAL MODEL | POWER RATING $P_{40\text{ }^\circ\text{C}}$ W | RESISTANCE RANGE Ω | TOLERANCE $\pm \%$ | WEIGHT (typical) g |
| CPSL03...5 | CPSL-3-5 | 3 | 0.01 to 0.10 | 1, 3, 5, 10 | 4.0 |
| CPSL03...3 | CPSL-3-3 | 3 | 0.01 to 0.10 | 1, 3, 5, 10 | 4.2 |
| CPSL05...5 | CPSL-5-5 | 5 | 0.01 to 0.10 | 1, 3, 5, 10 | 5.2 |
| CPSL05...3 | CPSL-5-3 | 5 | 0.01 to 0.10 | 1, 3, 5, 10 | 5.4 |
| CPSL07...5 | CPSL-7-5 | 7 | 0.01 to 0.10 | 1, 3, 5, 10 | 7.6 |
| CPSL10...5 | CPSL-10-5 | 10 | 0.01 to 0.10 | 1, 3, 5, 10 | 10.2 |
| CPSL15...5 | CPSL-15-5 | 15 | 0.01 to 0.10 | 1, 3, 5, 10 | 18.9 |

| TECHNICAL SPECIFICATIONS | | |
|---------------------------------|-----------------------|-------------------------------|
| PARAMETER | UNIT | CPSL RESISTOR CHARACTERISTICS |
| Temperature Coefficient | ppm/ $^\circ\text{C}$ | ± 100 maximum |
| Short Time Overload | - | 5 x rated power for 5 s |
| Maximum Working Voltage | V | $(P \times R)^{1/2}$ |
| Operating Temperature Range | $^\circ\text{C}$ | - 65 to + 275 |
| Terminal Strength | lb | 10 minimum |
| Dielectric Withstanding Voltage | V_{AC} | 1000 |

| GLOBAL PART NUMBER INFORMATION | | | | |
|-------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Global Part Numbering example: CPSL05R0500J B143 | | | | |
| C | P | S | L | 0 5 R 0 5 0 0 J B 1 4 3 |
| GLOBAL MODEL CPSL03 CPSL05 CPSL07 CPSL10 CPSL15 | VALUE R = Decimal R1000 = 0.10 Ω | TOLERANCE F = $\pm 1.0 \%$ G = $\pm 2.0 \%$ H = $\pm 3.0 \%$ J = $\pm 5.0 \%$ K = $\pm 10.0 \%$ | PACKAGING E14 = Lead (Pb)-free bulk E31 = Lead (Pb)-free four layer bulk B14 = Tin/lead bulk B31 = Tin/lead four layer bulk | SPECIAL (Dash Number) (up to 3 digits) From 1 to 999 as applicable |
| Historical Part Numbering example: CPSL-5-3 0.05 Ω 5 % B14 | | | | |
| CPSL-5-3 | 0.05 Ω | 5 % | B14 | |
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING | |

DIMENSIONS in inches [millimeters]


| GLOBAL MODEL | DIMENSIONS in inches [millimeters] | | | | | |
|--------------|-------------------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| | A ⁽¹⁾ ± 0.031 [0.794] | B ± 0.031 [0.794] | C ± 0.031 [0.794] | D ± 0.031 [0.794] | E ± 0.001 [0.025] | F ± 0.063 [1.59] |
| CPSL03...5 | 0.875 [22.22] | 0.313 [7.94] | 0.313 [7.94] | - | 0.036 [0.914] | 0.563 [14.30] |
| CPSL03...3 | 0.875 [22.22] | 0.313 [7.94] | 0.313 [7.94] | 0.375 [9.52] | 0.036 [0.914] | 0.563 [14.30] |
| CPSL05...5 | 0.875 [22.22] | 0.375 [9.52] | 0.344 [8.73] | - | 0.036 [0.914] | 0.563 [14.30] |
| CPSL05...3 | 0.875 [22.22] | 0.375 [9.52] | 0.344 [8.73] | 0.438 [11.11] | 0.036 [0.914] | 0.563 [14.30] |
| CPSL07...5 | 1.391 [35.32] | 0.375 [9.52] | 0.344 [8.73] | - | 0.036 [0.914] | 1.000 [25.40] |
| CPSL10...5 | 1.875 [47.62] | 0.375 [9.52] | 0.344 [8.73] | - | 0.036 [0.914] | 1.375 [34.93] |
| CPSL15...5 | 1.875 [47.62] | 0.500 [12.70] | 0.500 [12.70] | - | 0.036 [0.914] | 1.375 [34.93] |

Note

(1) Potting compound may extend outside of ceramic case up to 0.060 [1.52] maximum per side.

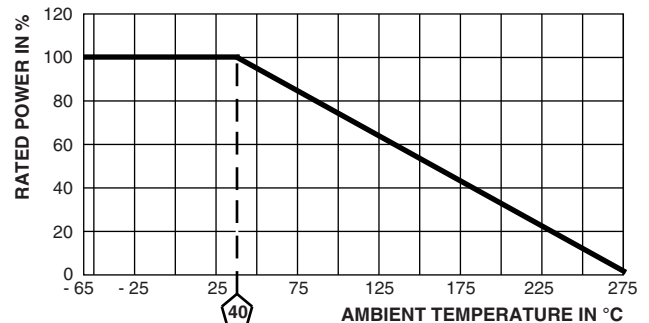
MATERIAL SPECIFICATIONS

Element: Self-supporting copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Body: Steatite ceramic case with inorganic potting compound

Terminals: Tinned copper

Part Marking: Dale, model, wattage, value, tolerance, date code

DERATING


| PERFORMANCE | | |
|---------------------------------|------------------------------------------------------------------------------------|-----------------------|
| TEST | CONDITIONS OF TEST | TEST LIMITS |
| 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 |
| Bias 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" | ± (5.0 % + 0.05 Ω) ΔR |
| Terminal Strength | 5 s to 10 s 10 pound pull test, torsion test - 3 alternating directions, 360° each | ± (1.0 % + 0.05 Ω) ΔR |
| Resistance to Solder Heat | Terminal immersed 3.5 s in molten solder at 1/8" to 3/16" from body | ± (1.0 % + 0.05 Ω) ΔR |



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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
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JONHON

«JONHON» (основан в 1970 г.)

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