

Thick Film Capacitor Networks, Single-In-Line, Conformal Coated SIP



FEATURES

- Isolated and bussed schematics available
- X7R and C0G capacitors available
- Multiple isolated capacitors
- Multiple capacitors, common ground
- Custom design capability
- "D" 0.300" (7.62 mm) package height (maximum)
- Compliant to RoHS directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



RoHS*
COMPLIANT
HALOGEN
FREE

STANDARD ELECTRICAL SPECIFICATIONS

| VISHAY DALE MODEL | PROFILE | SCHEMATIC | CAPACITANCE RANGE | | CAPACITANCE TOLERANCE (- 55 °C to + 125 °C) ± % | CAPACITANCE VOLTAGE at 85 °C V _{DC} |
|-------------------|---------|-----------|-------------------|------------------|---|--|
| | | | C0G (1) | X7R | | |
| CS201 | D | 1 | 33 pF to 3900 pF | 470 pF to 0.1 μF | 10, 20 | 50 |
| CS201 | D | 3 | 33 pF to 3900 pF | 470 pF to 0.1 μF | 10, 20 | 50 |
| CS201 | D | 4 | 33 pF to 3900 pF | 470 pF to 0.1 μF | 10, 20 | 50 |

Note

(1) C0G capacitors may be substituted for X7R capacitors

TECHNICAL SPECIFICATIONS

| PARAMETER | UNIT | CS201 | |
|--|-------------|-------------|--------|
| | | C0G | X7R |
| Temperature Coefficient (- 55 °C to +125 °C) | ppm/°C or % | ± 30 ppm/°C | ± 15 % |
| Dissipation Factor (Maximum) | ± % | 0.15 | 2.5 |

MECHANICAL SPECIFICATIONS

| | |
|--------------------------------|--|
| Marking Resistance to Solvents | Permanency testing per MIL-STD-202, method 215 |
| Solderability | Per MIL-STD-202, method 208E |
| Body | High alumina, epoxy coated (flammability UL 94 V-0) |
| Terminals | Phosphorus-bronze, solder plated |
| Marking | Pin #1 identifier, DALE or D, part number (abbreviated as space allows), date code |

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: 20108D1C103K5P (preferred part numbering format)



| GLOBAL MODEL | PIN COUNT | PACKAGE HEIGHT | SCHEMATIC | CHARACTERISTIC | CAPACITANCE VALUE | TOLERANCE | VOLTAGE | PACKAGING | SPECIAL |
|--------------|---|-----------------|----------------------------|-----------------------------------|--|---|-------------------------|--|---|
| 201 = CS201 | 04 to 18 pin available 04 = 4 pin 08 = 8 pin 18 = 18 pin | D = "D" Profile | 1 3 4 0 = Special | C = C0G X = X7R S = Special | (in picofarads) 2 digit significant figure, followed by a multiplier 330 = 33 pF 392 = 3900 pF 104 = 0.1 μF | K = ± 10 % M = ± 20 % S = Special | 5 = 50 V S = Special | E = Lead (Pb)-free, bulk P = Tin/lead, bulk | Blank = Standard (Dash Number) (Up to 3 digits) From 1 to 999 as applicable |

Historical Part Number example: CS20108D1C103K5 (will continue to be accepted)

| | | | | | | | | |
|------------------|-----------|----------------|-----------|----------------|-------------------|-----------|---------|-----------|
| CS201 | 08 | D | 1 | C | 103 | K | 5 | P03 |
| HISTORICAL MODEL | PIN COUNT | PACKAGE HEIGHT | SCHEMATIC | CHARACTERISTIC | CAPACITANCE VALUE | TOLERANCE | VOLTAGE | PACKAGING |

* Pb containing terminations are not RoHS compliant, exemptions may apply

DIMENSIONS in inches (millimeters)


Pin #1 is extreme left-hand terminal on side with marking.

| NUMBER OF PINS | L MAXIMUM | NUMBER OF PINS | L MAXIMUM | NUMBER OF PINS | L MAXIMUM |
|----------------|---------------|----------------|---------------|----------------|---------------|
| 4 pin | 0.400 (10.16) | 9 pin | 0.900 (22.86) | 14 pin | 1.400 (35.56) |
| 5 pin | 0.500 (12.70) | 10 pin | 1.000 (25.40) | 15 pin | 1.500 (38.10) |
| 6 pin | 0.600 (15.24) | 11 pin | 1.100 (27.94) | 16 pin | 1.600 (40.64) |
| 7 pin | 0.700 (17.78) | 12 pin | 1.200 (30.48) | 17 pin | 1.700 (43.18) |
| 8 pin | 0.800 (20.32) | 13 pin | 1.300 (33.02) | 18 pin | 1.800 (45.72) |

SCHEMATICS
Schematic 1

Common Bus - 1 Ground Lead
Schematic 3

Isolated Capacitor Sections
Schematic 4

Common Bus - 2 Ground Leads



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