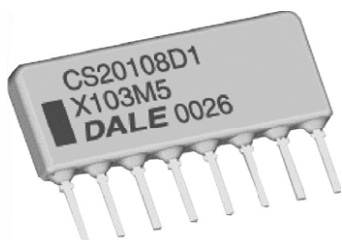


Thick Film Capacitor Networks, Single-In-Line, Conformal Coated SIP



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)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS*
Available
**HALOGEN
FREE**

Note

* 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.

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 |

MATERIAL 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)

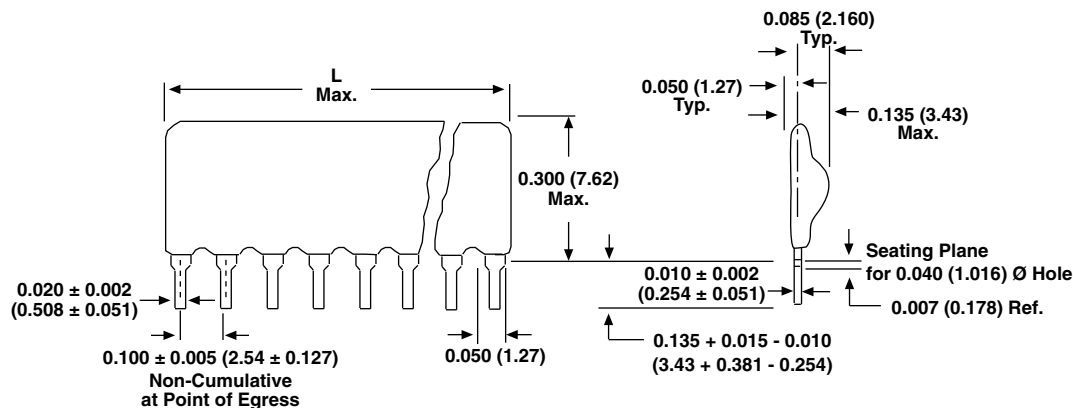
| | | | | | | | | | | | | | | | | |
|-----------------|--|--------------------|----------------------------|-----------------------------------|---|---|-------------------------|---|---|---|---|---|---|--|--|--|
| 2 | 0 | 1 | 0 | 8 | D | 1 | C | 1 | 0 | 3 | K | 5 | P | | | |
| GLOBAL MODEL | PIN COUNT | 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 |

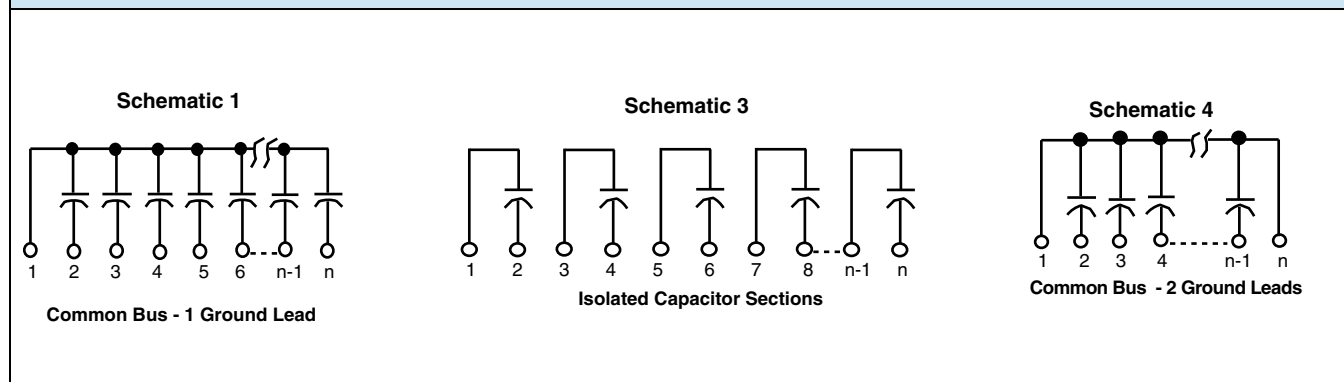
Note

- For additional information on packaging, refer to the Through-hole Network Packaging document (www.vishay.com/doc?31542).

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




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