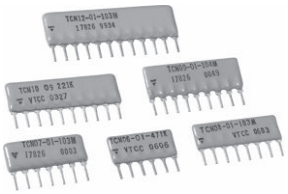
# Thick Film Capacitor Networks, Single-In-Line, Conformal Coated SIP



## FEATURES

- Isolated and bussed schematics available
- NP0 or X7R capacitors for line terminator
- Wide operating temperature range (- 55 °C to 125 °C)
- Epoxy based conformal coating
- Solder coated copper terminals
- Solderability per MIL-STD-202 method 208E
- Marking resistance to solvents per MIL-STD-202 method 215
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb Available

e1 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

| MODEL | SCHEMATIC | CAPACITANCE RANGE | | CAPACITANCE TOLERANCE (2) ± % | CAPACITANCE VOLTAGE $V_{DC}$ |
|---|---|---|---|---|---|
| | | NP0 (1) | X7R | | |
| TCN | 01 | 33 pF to 3900 pF | 470 pF to 0.1 µF | 10, 20 | 50 |
| | 02 | 33 pF to 3900 pF | 470 pF to 0.1 µF | 10, 20 | 50 |
| | 09 | 33 pF to 3900 pF | 470 pF to 0.1 µF | 10, 20 | 50 |

**Notes**

(1) NP0 capacitors may be substituted for X7R capacitors.

(2) Tighter tolerances available on request.

## GLOBAL PART NUMBER INFORMATION

**New Global Part Numbering: TCN0801N101KTB (preferred part number format)**

| T | C | N | 0 | 8 | 0 | 1 | N | 1 | 0 | 1 | K | T | B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| GLOBAL MODEL | PIN COUNT | SCHEMATIC | CHARACTERISTICS | CAPACITANCE VALUE | TOLERANCE | TERMINAL FINISH | PACKAGING |
|---|---|---|---|---|---|---|---|
| **TCN** | 06 to 12 pin available<br>**06** = 6 pin<br>**08** = 8 pin<br>**12** = 12 pin | **01**<br>**02**<br>**09** | **N** = NP0<br>**X** = X7R | (In picofarads)<br>2 digit significant figure, followed by a multiplier<br>**101** = 100 pF<br>**392** = 3000 pF<br>**104** = 0.1 µF | **K** = 10 %<br>**M** = 20 % | **T** = Sn90/Pb10<br>**C** = Sn95.5/ Ag3.9/ Cu0.6 | **B** = Bulk |

**Historical Part Numbering: TCN0801101KS10 (will continue to be accepted)**

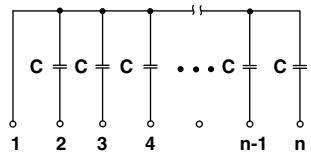
| TCN | 08 | 01 | 101 | K | S10 |
|---|---|---|---|---|---|
| HISTORICAL MODEL | PIN COUNT | SCHEMATIC | CAPACITANCE VALUE | TOLERANCE | TERMINAL FINISH |

**Note**

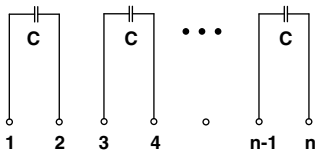
- For additional information on packaging, refer to the Through-hole Network Packaging document (www.vishay.com/doc?31542).

## SCHEMATICS

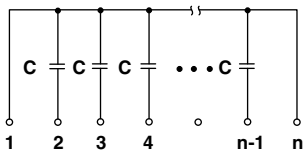
Schematic 01




Schematic 02



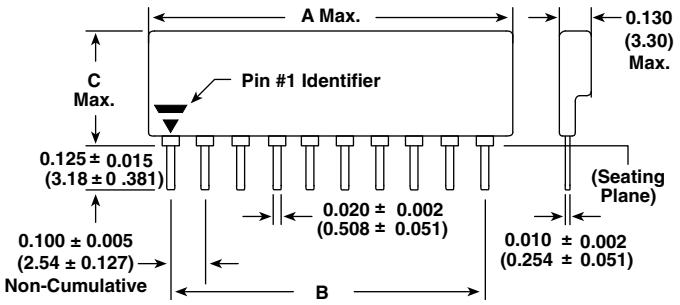

Schematic 09




**Note**

- Custom schematics available.

## DIMENSIONS in inches (millimeters)




| NUMBER OF PINS | A (Max.) | B ± 0.005 (0.127) | C (Max.) |
|---|---|---|---|
| 6 | 0.590 (14.99) | 0.500 (12.70) | 0.350 (8.89) |
| 7 | 0.690 (17.53) | 0.600 (15.24) | 0.350 (8.89) |
| 8 | 0.790 (20.07) | 0.700 (17.78) | 0.350 (8.89) |
| 9 | 0.890 (22.61) | 0.800 (20.32) | 0.350 (8.89) |
| 10 | 0.990 (25.15) | 0.900 (22.86) | 0.350 (8.89) |
| 11 | 1.09 (27.69) | 1.00 (25.40) | 0.350 (8.89) |
| 12 | 1.19 (30.23) | 1.10 (27.94) | 0.350 (8.89) |

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