

## CONDENSATEURS CERAMIQUE MOULES CLASSE 2

## MOLDED CERAMIC CAPACITORS CLASS 2

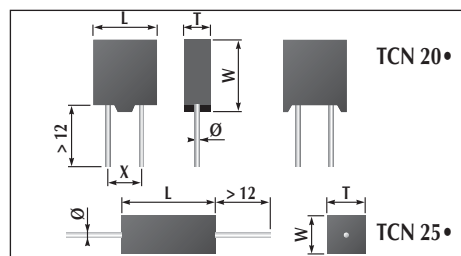
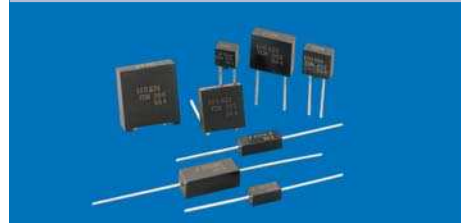
RoHS = W  
Voir / See Page 9TCN 201 à/to 204  
TCN 252 à/to 254

| Appellation commerciale / Commercial type |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    |     | Code des valeurs de C <sub>R</sub><br>Capacitance value coded | Tolérances sur capacité<br>Tolérance on capacitance |
|-------------------------------------------|------|---------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-----|---------------------------------------------------------------|-----------------------------------------------------|
| TCN 201                                   |      | TCN 202 |      | TCN 203 |     | TCN 204 |     | TCN 252 |     | TCN 253 |    | TCN 254 |    |     |    |     |                                                               |                                                     |
| Boîtier / Case                            |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
|                                           | Y    | I       | J    | O       | Z   | A       | B   |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| Dimensions / Dimensions (mm)              |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| L ± 0,5                                   | 3,5  | 5       | 7,5  | 10      | 5,5 | 7,5     | 10  |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| W max.                                    | 4,5  | 6       | 8,5  | 11      | 2,5 | 2,5     | 3,9 |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| T ± 0,2                                   | 2,5  | 2,5     | 2,5  | 3,5     | 2,5 | 2,5     | 3,9 |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| X ± 0,2                                   | 2,54 | 2,54    | 5,08 | 5,08    |     |         |     |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| Ø -0,05 + 10%                             | 0,6  | 0,6     | 0,6  | 0,8     | 0,6 | 0,6     | 0,6 |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| Tension nominale / Rated voltage          |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    |     |                                                               |                                                     |
| U <sub>RC</sub> (V)                       | 50   | 63      | 100  | 50      | 63  | 100     | 50  | 63      | 100 | 50      | 63 | 100     | 63 | 100 | 63 | 100 |                                                               |                                                     |
| 10 pF                                     |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 100 |                                                               |                                                     |
| 12                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 120 |                                                               |                                                     |
| 15                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 150 |                                                               |                                                     |
| 18                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 180 |                                                               |                                                     |
| 22                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 220 |                                                               |                                                     |
| 27                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 270 |                                                               |                                                     |
| 33                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 330 |                                                               |                                                     |
| 39                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 390 |                                                               |                                                     |
| 47                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 470 |                                                               |                                                     |
| 56                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 560 |                                                               |                                                     |
| 68                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 680 |                                                               |                                                     |
| 82                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 820 |                                                               |                                                     |
| 100                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 101 |                                                               |                                                     |
| 120                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 121 |                                                               |                                                     |
| 150                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 151 |                                                               |                                                     |
| 180                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 181 |                                                               |                                                     |
| 220                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 221 |                                                               |                                                     |
| 270                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 271 |                                                               |                                                     |
| 330                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 331 |                                                               |                                                     |
| 390                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 391 |                                                               |                                                     |
| 470                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 471 |                                                               |                                                     |
| 560                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 561 |                                                               |                                                     |
| 680                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 681 |                                                               |                                                     |
| 820                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 821 |                                                               |                                                     |
| 1000                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 102 |                                                               |                                                     |
| 1200                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 122 |                                                               |                                                     |
| 1500                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 152 |                                                               |                                                     |
| 1800                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 182 |                                                               |                                                     |
| 2200                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 222 |                                                               |                                                     |
| 2700                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 272 |                                                               |                                                     |
| 3300                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 332 |                                                               |                                                     |
| 3900                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 392 |                                                               |                                                     |
| 4700                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 472 |                                                               |                                                     |
| 5600                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 562 |                                                               |                                                     |
| 6800                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 682 |                                                               |                                                     |
| 8200                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 822 |                                                               |                                                     |
| 10 nF                                     |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 103 |                                                               |                                                     |
| 12                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 123 |                                                               |                                                     |
| 15                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 153 |                                                               |                                                     |
| 18                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 183 |                                                               |                                                     |
| 22                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 223 |                                                               |                                                     |
| 27                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 273 |                                                               |                                                     |
| 33                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 333 |                                                               |                                                     |
| 39                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 393 |                                                               |                                                     |
| 47                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 473 |                                                               |                                                     |
| 56                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 563 |                                                               |                                                     |
| 68                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 683 |                                                               |                                                     |
| 82                                        |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 823 |                                                               |                                                     |
| 100                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 104 |                                                               |                                                     |
| 120                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 124 |                                                               |                                                     |
| 150                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 154 |                                                               |                                                     |
| 180                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 184 |                                                               |                                                     |
| 220                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 224 |                                                               |                                                     |
| 270                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 274 |                                                               |                                                     |
| 330                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 334 |                                                               |                                                     |
| 390                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 394 |                                                               |                                                     |
| 470                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 474 |                                                               |                                                     |
| 560                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 564 |                                                               |                                                     |
| 680                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 684 |                                                               |                                                     |
| 820                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 824 |                                                               |                                                     |
| 1 µF                                      |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 105 |                                                               |                                                     |
| 1,2                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 125 |                                                               |                                                     |
| 1,5                                       |      |         |      |         |     |         |     |         |     |         |    |         |    |     |    | 155 |                                                               |                                                     |

option : connexions en nickel étamé (suffixe D) pour boîtiers TCN 201 à 204 / tinned nickel leads (suffix D) for TCN 201 to 204 cases

## Exemple de codification à la commande / How to order

| Appellation commerciale<br>Commercial type | D : Connexions en nickel étamé (boîtiers TCN 201 à 204)<br>D : Tinned nickel leads (TCN 201 to 204 cases) |   |             |           |       | Tension nominale<br>Rated voltage |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------|---|-------------|-----------|-------|-----------------------------------|
| TCN 203                                    | —                                                                                                         | — | 100 nF      | 10 %      | 100 V |                                   |
|                                            | W : RoHS                                                                                                  |   | Capacité    | Tolérance |       |                                   |
|                                            | W : RoHS                                                                                                  |   | Capacitance | Tolerance |       |                                   |

HAUTE TEMPERATURE  
HIGH TEMPERATURE

## CARACTERISTIQUES GENERALES

|                                             |                                          |
|---------------------------------------------|------------------------------------------|
| Diélectrique                                | Céramique classe 2                       |
| Technologie                                 | Chips multicouches<br>moulé résine époxy |
| Température d'utilisation                   | - 55°C + 200°C                           |
| Tension nominale U <sub>RC</sub> à 20°C     | 50 V - 63 V - 100 V                      |
| Tension de catégorie à 200°C                | 0,5 U <sub>RC</sub>                      |
| Tension de tenue à 20°C                     | 2,5 U <sub>RC</sub>                      |
| Tg δ à 1 kHz                                |                                          |
| à 20°C C <sub>R</sub> ≥ 100 pF              | ≤ 250.10 <sup>-4</sup>                   |
| à 200°C                                     | ≤ 150.10 <sup>-4</sup>                   |
| Tg δ à 1 MHz                                |                                          |
| à 20°C C <sub>R</sub> < 100 pF              | ≤ 250.10 <sup>-4</sup>                   |
| Résistance d'isolement sous U <sub>RC</sub> |                                          |
| à 20°C C <sub>R</sub> ≤ 25 000 pF           | ≥ 20 000 MΩ                              |
| C <sub>R</sub> > 25 000 pF                  | ≥ 500 MΩ.µF                              |
| à 200°C C <sub>R</sub> ≤ 25 000 pF          | ≥ 200 MΩ                                 |
| C <sub>R</sub> > 25 000 pF                  | ≥ 5 MΩ.µF                                |

## MARQUAGE

|            |  |
|------------|--|
| Modèle     |  |
| Capacité*  |  |
| Tolérance* |  |
| Tension*   |  |
| Date-code  |  |

## MAIN CHARACTERISTICS

|                                             |                                  |
|---------------------------------------------|----------------------------------|
| Dielectric                                  | Ceramic class 2                  |
| Technology                                  | Multilayer chips<br>epoxy molded |
| Operating temperature                       | - 55°C + 200°C                   |
| Rated voltage U <sub>RC</sub> at 20°C       | 50 V - 63 V - 100 V              |
| Voltage category at 200°C                   | 0,5 U <sub>RC</sub>              |
| Test voltage at 20°C                        | 2,5 U <sub>RC</sub>              |
| Tg δ at 1 kHz                               |                                  |
| at 20°C C <sub>R</sub> ≥ 100 pF             | ≤ 250.10 <sup>-4</sup>           |
| at 200°C                                    | ≤ 150.10 <sup>-4</sup>           |
| Tg δ at 1 MHz                               |                                  |
| at 20°C C <sub>R</sub> < 100 pF             | ≤ 250.10 <sup>-4</sup>           |
| Insulation resistance under U <sub>RC</sub> |                                  |
| at 20°C C <sub>R</sub> ≤ 25 000 pF          | ≥ 20 000 MΩ                      |
| C <sub>R</sub> > 25 000 pF                  | ≥ 500 MΩ.µF                      |
| at 200°C C <sub>R</sub> ≤ 25 000 pF         | ≥ 200 MΩ                         |
| C <sub>R</sub> > 25 000 pF                  | ≥ 5 MΩ.µF                        |

## MARKING

|              |  |
|--------------|--|
| Model        |  |
| Capacitance* |  |
| Tolerance*   |  |
| Voltage*     |  |
| Date-code    |  |

\* En clair ou en code (voir page 33)  
Clear or coded (see page 33)