

**CRCW0201**

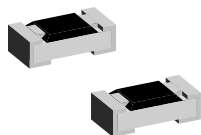
Vishay



## Thick Film Rectangular, Chip Resistor

### FEATURES

- Metal glaze on high quality ceramic
- Protective overglaze
- SnPb contacts on Ni barrier layer flow solderable
- Automatic placement compatibility
- Applications: cellular phones, memory modules, PCMCIA cards



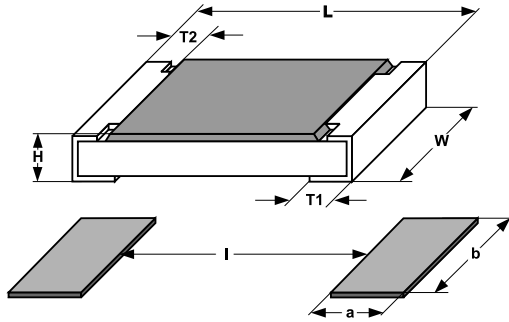
| STANDARD ELECTRICAL SPECIFICATIONS |              |                                               |                                                |                                                       |                |                                 |          |
|------------------------------------|--------------|-----------------------------------------------|------------------------------------------------|-------------------------------------------------------|----------------|---------------------------------|----------|
| MODEL                              | SIZE<br>INCH | POWER RATING<br>$P_{70^{\circ}\text{C}}$<br>W | LIMITING ELEMENT<br>VOLTAGE MAX<br>$V_{\cong}$ | TEMPERATURE<br>COEFFICIENT<br>ppm/ $^{\circ}\text{C}$ | TOLERANCE<br>% | RESISTANCE<br>RANGE<br>$\Omega$ | E-SERIES |
| CRCW0201                           | 0201         | 0.05                                          | 30                                             | $\leq 200$                                            | 5              | 10R – 1M0                       | 24       |

- Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material
- Ask about extended value ranges.
- Marking: no marking

| TECHNICAL SPECIFICATIONS                   |                    |                   |
|--------------------------------------------|--------------------|-------------------|
| PARAMETER                                  | UNIT               | CRCW0201          |
| Rated Dissipation at 70 $^{\circ}\text{C}$ | W                  | 0.05              |
| Limiting Element Voltage <sup>1)</sup>     | $V_{\cong}$        | 30                |
| Insulation Voltage (1min)                  | $V_P$              | 50                |
| Insulation Resistance                      | $\Omega$           | $> 10^9$          |
| Category Temperature Range                 | $^{\circ}\text{C}$ | - 55 / + 125      |
| Failure Rate                               | $\text{h}^{-1}$    | $1 \cdot 10^{-9}$ |
| Weight / 1000 pieces                       | g                  | 0.17              |

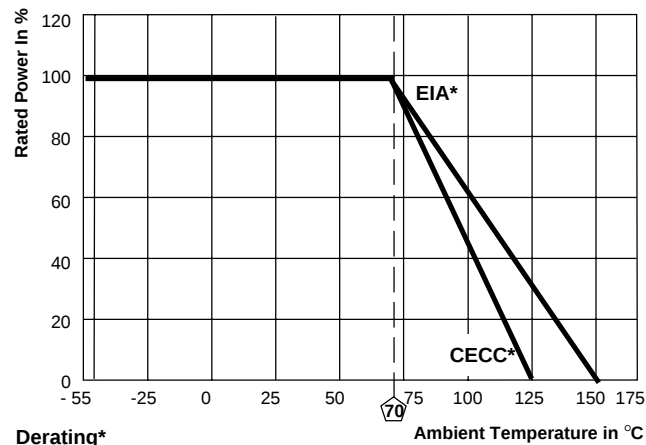
<sup>1)</sup>Rated voltage:  $\sqrt{P \times R}$ 

| ORDERING INFORMATION |                              |                            |                               |                                                                                  |
|----------------------|------------------------------|----------------------------|-------------------------------|----------------------------------------------------------------------------------|
| CRCW0201             | 100R                         | J                          | 200                           | P0                                                                               |
| MODEL                | RESISTANCE VALUE<br>$\Omega$ | TOLERANCE<br>$J = \pm 5\%$ | TC<br>ppm/ $^{\circ}\text{C}$ | PACKAGING<br>Papertape 10,000 pieces<br>P0 = in Europe<br>RT7 = in Americas/Asia |

**DIMENSIONS**


| SIZE | DIMENSIONS  |             |             |             |             |
|------|-------------|-------------|-------------|-------------|-------------|
|      | L           | W           | H           | T1          | T2          |
| mm   | 0.6 ±0.05   | 0.3 ±0.05   | 0.23 ±0.05  | 0.15 ±0.05  | 0.15 ±0.05  |
| inch | 0.024 ±.002 | 0.012 ±.002 | 0.009 ±.002 | 0.006 ±.002 | 0.006 ±.002 |

| SIZE | SOLDER PAD DIMENSIONS |       |       |
|------|-----------------------|-------|-------|
|      | a                     | b     | I     |
| mm   | 0.28                  | 0.43  | 0.23  |
| inch | 0.011                 | 0.017 | 0.009 |



\*There are differences in board layout and measurements between CECC and EIA.

**PERFORMANCE**

| TEST                                                             | CONDITIONS OF TEST                                                                      | TEST RESULTS |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------|
| Endurance Test at 70°C<br>IEC 60115-1 4.25.1                     | 1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"                                     | ≤ ± 3.0%     |
| Endurance Test at UCT<br>IEC 60115-1 4.25.3                      | 1000 hours at 125°C without load                                                        | ≤ ± 2.0%     |
| Overload Test<br>IEC 60115-1 4.13                                | Short time overload at 2.5 x rated voltage or 2 x limiting element voltage, 0.5 seconds | ≤ ± 1.0%     |
| Thermal Shock<br>IEC 60115-1 4.19, IEC 60068-2-14                | Rapid change between upper and lower category temperature                               | ≤ ± 0.5%     |
| Damp Heat Steady State<br>IEC 60115-1 4.24, IEC 60068-2-3        | 56 days at 40°C and 93% relative humidity at $U \approx \sqrt{P/100 \times R}$          | ≤ ± 2.0%     |
| Resistance to Soldering Heat<br>IEC 60115-1 4.18, IEC 60068-2-20 | 10 seconds at 260°C solder bath temperature                                             | ≤ ± 1.0%     |

**APPLICABLE SPECIFICATIONS**

- CECC40000 / 40400 / EN 140 400 / IEC 60115 - 1
- EIA 575
- MIL-PRF-55342

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