

# SPECIFICATIONS

## Material

**Resistive element:** Thick or thin film chip resistor

**Leads:** Tin plated copper (100Sn)

**Case:** Ryton

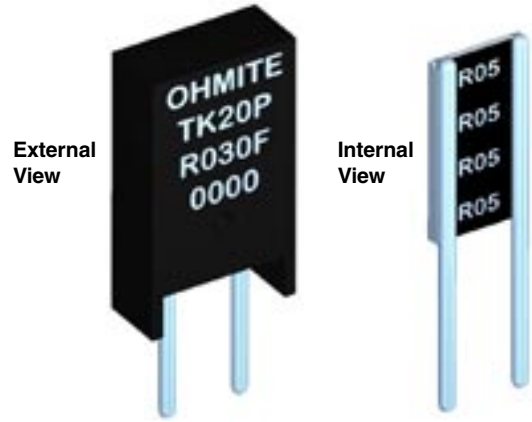
**Heatsink plate:** Black anodized aluminum

| Electrical  | Thick film TK20                     | Thin film TN15      |
|---|-------------------------------------|---------------------|
| <b>Power rating:</b>  | 20W                                 | 15W                 |
| (Heat-sink dependent; must be attached to a proper heat sink for full power rating. Max. case temp. cannot exceed 150°C.) |                                     |                     |
| <b>Derating:</b>  | Linear, 100% at 25°C to 0% at 150°C |                     |
| <b>Resistance Range:</b>  | 10mΩ-10KΩ                           | 4Ω-10KΩ             |
| <b>Tolerance:</b>   | 5%                                  | 1%                  |
| <b>Max. working voltage:</b>  | 0.01Ω-1KΩ: $\sqrt{20 \cdot R}$      | $\sqrt{15 \cdot R}$ |
|   | 3KΩ-10KΩ: 150V                      | 200V                |
| <b>Max. working current:</b>  | 0.01Ω-0.1Ω: 10A                     |                     |
|   | 0.3Ω-10KΩ: $\sqrt{20/R}$            |                     |
|   | 4Ω-10KΩ: $\sqrt{15/R}$              |                     |
| <b>TCR:</b>   | 0.01Ω-0.1Ω: ±300ppm                 |                     |
|   | 0.3Ω-10KΩ: ±200ppm                  |                     |
|   | 4Ω-10KΩ: ±50ppm (lower available)   |                     |
| <b>Thermal resistance. R<sub>TH</sub>:</b>  | <6.25°C/W                           | <8.33°C/W           |



# TK/TN Series

20 and 15 Watt TO-220 Style Thick and Thin Film Resistors  
RoHS Compliant



**ORDERING INFORMATION**

## TK20P1R00JE

|  |  |   |                                      |                       |
|--|--|---|--------------------------------------|-----------------------|
| <b>Series</b><br>TK20 = 20W thick film<br>TN15 = 15W thin film | <b>TCR</b><br>(TN15 only)<br>P = ±50ppm<br>L = ±25ppm<br>V = ±10ppm<br>X = ±5ppm | <b>Resistance</b><br>Example:<br>R075 = 75mΩ<br>7R50 = 7.5Ω<br>75R0 = 75Ω<br>7K50 = 7500Ω | <b>Tolerance</b><br>F = 1%<br>J = 5% | <b>RoHS Compliant</b> |
|--|--|---|--------------------------------------|-----------------------|

## STOCK PART NUMBERS

| Ohms   | TK20 thick film 20 watt 5% tol. | TN15 thin film 15 watt 1% tol. |
|--------|---------------------------------|--------------------------------|
| 0.01   | TK20PR010JE                     |                                |
| 0.03   | TK20PR030JE                     |                                |
| 0.04   | TK20PR040JE                     |                                |
| 0.05   | TK20PR050JE                     |                                |
| 0.075  | TK20PR075JE                     |                                |
| 0.1    | TK20PR100JE                     |                                |
| 0.3    | TK20PR300JE                     |                                |
| 0.4    | TK20PR400JE                     |                                |
| 0.5    | TK20PR500JE                     |                                |
| 0.75   | TK20PR750JE                     |                                |
| 1      | TK20P1R00JE                     |                                |
| 3      | TK20P3R00JE                     |                                |
| 4      | TK20P4R00JE                     | TN15P4R00FE                    |
| 5      | TK20P5R00JE                     | TN15P5R00FE                    |
| 7.5    | TK20P7R50JE                     | TN15P7R50FE                    |
| 10     | TK20P10R0JE                     | TN15P10R0FE                    |
| 30     | TK20P30R0JE                     | TN15P30R0FE                    |
| 40     | TK20P40R0JE                     | TN15P40R0FE                    |
| 50     | TK20P50R0JE                     | TN15P50R0FE                    |
| 75     | TK20P75R0JE                     | TN15P75R0FE                    |
| 100    | TK20P100RJE                     | TN15P100RFE                    |
| 300    | TK20P300RJE                     | TN15P300RFE                    |
| 400    | TK20P400RJE                     | TN15P400RFE                    |
| 500    | TK20P500RJE                     | TN15P500RFE                    |
| 750    | TK20P750RJE                     | TN15P750RFE                    |
| 1000   | TK20P1K00JE                     | TN15P1K00FE                    |
| 3000   | TK20P3K00JE                     | TN15P3K00FE                    |
| 4000   | TK20P4K00JE                     | TN15P4K00FE                    |
| 5000   | TK20P5K00JE                     | TN15P5K00FE                    |
| 7500   | TK20P7K50JE                     | TN15P7K50FE                    |
| 10,000 | TK20P10K0JE                     | TN15P10K0FE                    |

## BRACKET

6200: recommended mounting bracket kit (optional)

