Resistors

High Temperature Thick Film Chip Resistors

HTC Series

- Operation to 200°C
- Excellent high temperature stability
- Improved working voltage ratings
- Pb-free wrap-around terminations
- Standard chip sizes available from 1206 to 2512





All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

| Characteristic | 1206 | 2010 | 2512 | |
|-----------------------------|---|--------|--------------------|--|
| Resistance Range | 1Ω to 10MΩ; ±1%, ±5% 10Ω to 1MΩ; ±0.5%, ±5%, ±1% | | | |
| 150°C Power Rating | 200mW | 500mW | 750mW | |
| Max Voltage Rating | 200V | 400V | 500V | |
| Absolute TCR | ± 100ppm/°C | | | |
| Operating Temperature | -55°C to +200°C | | | |
| Pad/Trace Area ¹ | 80mm² | 200mm² | 300mm ² | |
| Termination | Wrap-around Pb-free with leach resistant Ni barrier | | | |

Note1 : Recommended minimum pad and adjacent trace area for each termination for rated power on FR4 PCB.

Environmental Data

| Test | Mathed | Specification | |
|------------------------------|---|---------------|---------|
| Test | est Metriod | | Typical |
| Load Life | MIL-STD-202 Method 108 (Rated Power for 1000hrs @ 150°C) | 1.00% | 0.25% |
| High Temperature Exposure | 1000 hours @ 200°C | 1.00% | 0.20% |
| Short Time Overload | MIL-PRF-55342H (6.25X rated power for 5secs) | 1.00% | 0.10% |
| Moisture Resistance | MIL-STD-202 Method 106G | 1.00% | 0.25% |
| Thermal Shock | MIL-STD-202 Method 107G Condition B | 0.25% | 0.05% |
| Resistance to Soldering Heat | MIL-STD-202 Method 210F | 0.25% | 0.05% |
| Solderability | MIL-STD-202 Method 208 (245°C, 5 seconds) | >95% Coverage | |

Note²: 0.01Ω added for all resistance values < 10Ω .

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.



HTC Series

Physical Data



Construction:

Thick film resistor material, overglaze and organic protection are screen printed on a 96% alumina substrate. Wrap-around terminations have an electroplated Ni barrier and pure Sn matte finish, ensuring excellent `leach' resistance properties and solderability.

Marking:

Components are not marked. Reels are marked with type, value, tolerance, date code and quantity.

Solvent resistance:

The body protection is resistant to all normal industrial cleaning solvents suitable for printed circuits.



Ordering Data

| Prefix TKC - HTC - 2512LF - 100R - | F |
|---|--------|
| Chip Type HTC (High Temperature Chip) | |
| Chip Size and Termination | •••••• |
| Resistance Value (4 Digit Code). Ex. 1R00 = 1Ω; 100R = 100Ω; 10K0 =10KΩ; 1M50 = 1.5MΩ | • |
| Tolerance Code . J = $\pm 5\%$; F = $\pm 1\%$; D = $\pm 0.5\%$ | .: |

For additional information or to discuss your specific requirements, please contact our Applications Team using the contact details below.

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