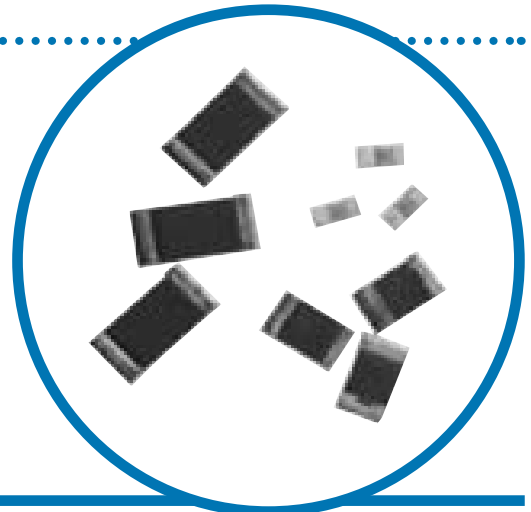


# High Temperature Chip Resistor

## HTCR Series

- High temperature operation to 250°C
- For gold wire bond (G type)
- For conductive adhesive (G, P & EW types)
- For soldering (F type)
- Non-magnetic (G, P & EW types)
- Range 0805 to 2512 at 1R0 to 10M
- RoHS compliant



## Electrical Data

Size		0805	1206	2010	2512
Power @230°C (G&P only)	W	0.063	0.125	0.25	0.5
Power @155°C	W	0.1	0.2	0.5	0.75
Power @70°C	W	0.125	0.25	0.625	1
Resistance range	ohms	1R0 to 10M			
Tolerance	%	1, 5			
LEV	V	150	200	400	500
TCR	ppm/°C	<10R:200 ≥10R:100			
Operating temperature	°C	F type -55 to +200, EW type -55 to +225, G&P type -55 to +250			
Thermal Impedance	°C/W	220	160	75	40
Values		E24 or E96 preferred - other values to special order			

## Physical Data (All dimensions in mm and nominal weight in g)

	L	W	T	A & C	Wt.	
<b>0805</b>	2.0 +0.2/-0.15	1.25 ±0.15	0.5 ±0.15	0.4 ±0.2	0.009	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>G &amp; P types</b></p> </div> <div style="text-align: center;"> <p><b>EW &amp; F types</b></p> </div> </div>
<b>1206</b>	3.15 +0.2/-0.2	1.6 ±0.15	0.5 ±0.15	0.45 ±0.2	0.020	
<b>2010</b>	5.0 ±0.2	2.5 ±0.2	0.65 ±0.15	0.5 +0.25/-0.3	0.036	
<b>2512</b>	6.25 ±0.25	3.2 ±0.2	0.65 ±0.15	0.6 +0.25/-0.3	0.055	

## Construction

Planar gold G type or PtAg P types: Electrodes, resistor material and overglaze are printed onto an alumina substrate. The resistors are laser trimmed to the required value and protected. The gold terminations are suitable for wire bonding and both types are suitable for attachment with conductive adhesive.

Wraparound EW type: Thick-film PtAg electrodes, resistor material and overglaze are printed onto an alumina substrate. The resistors are laser trimmed to the required value and protected. The terminations are wraparound coated with a polymer Ag material and are suitable for attachment with conductive adhesive.

Wraparound F type: These are made as the EW type then plated with a nickel barrier and 100% tin plating and are suitable for soldering.

## Marking

The components are not marked; all data is printed onto the packaging.

## Solvent Resistance

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

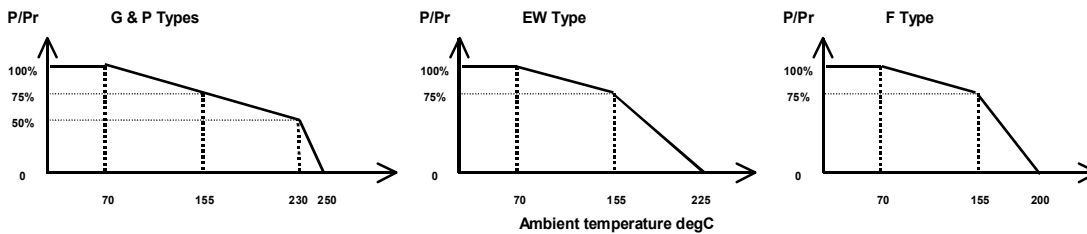
### General Note

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.

## Performance Data

		Maximum
Load at rated power (1000hrs at 155°C and 70°C)	$\Delta R$	2% + 0.01 $\Omega$
Derating from rated power at 70°C		See Derating Curves below
Short term overload	$\Delta R$	1% + 0.01 $\Omega$
Dry heat (1000hrs at 250°C)	$\Delta R$	2% + 0.01 $\Omega$
Damp heat steady state (56 days, 40°C, $\geq 90\%$ RH)	$\Delta R$	1% + 0.01 $\Omega$
Climatic	$\Delta R$	1% + 0.01 $\Omega$
Temperature rapid change (5 cycles -55°C to +250°C)	$\Delta R$	1% + 0.01 $\Omega$

## Derating Curves



## Packaging

0805 and 1206 HTCR series resistors are supplied on 8mm carrier tape and 7 inch reels as per IEC 286-3, quantity per reel; 3000.

2010 and 2512 HTCR series resistors are supplied on 12mm carrier tape and 7 inch reels as per IEC 286-3, quantity per reel; 2010: 3000pcs; 2512: 1800pcs.

## Ordering Procedure

Example: HTCR1206 in gold planar format at 10 kilohms and 1% tolerance packed in tape.

**HTCR1206G-10KFT3**

Type \_\_\_\_\_

Terminations \_\_\_\_\_

G	Gold planar	Wire bond / adhesive
P	PtAg planar	Adhesive
EW	Polymer Ag wraparound	Adhesive
F	Ni Barrier & Sn plated wraparound	Solder

Value (use IEC62 code) \_\_\_\_\_

Tolerance (use IEC62 code) \_\_\_\_\_

F	1%
J	5%

Packing \_\_\_\_\_

T3	Tape	0805, 1206, 2010	up to 3000/reel	Standard
T18		2512	up to 1800/reel	

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