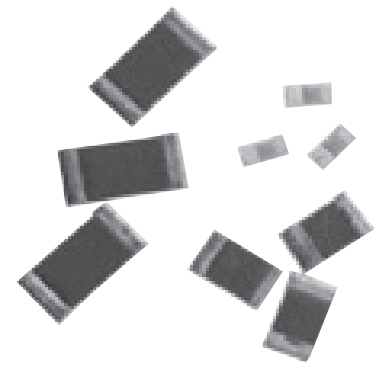


High Temperature Chip Resistor

HTCR Series

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



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

Electrical Data

Size		0805	1206	2010	2512
Power @230°C (G&P only)	W	0.063	0.125	0.31	0.5
Power @155°C	W	0.1	0.19	0.47	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,		E 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)

Dimensions (mm) & weight (mg)								
	L	W	T max	A	C	Wt.	G & P types	E & F types
0805	2.0±0.15	1.25±0.15	0.6	0.3±0.15	0.3±0.1	4.7		
1206	3.2±0.2	1.6±0.2	0.7	0.4±0.2	0.4±0.15	8.5		
2010	5.1±0.3	2.5±0.2	0.8	0.6±0.3	0.6±0.25	36		
2512	6.5±0.3	3.2±0.2	0.8	0.6±0.3	0.6±0.25	55		

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 E 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 E 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

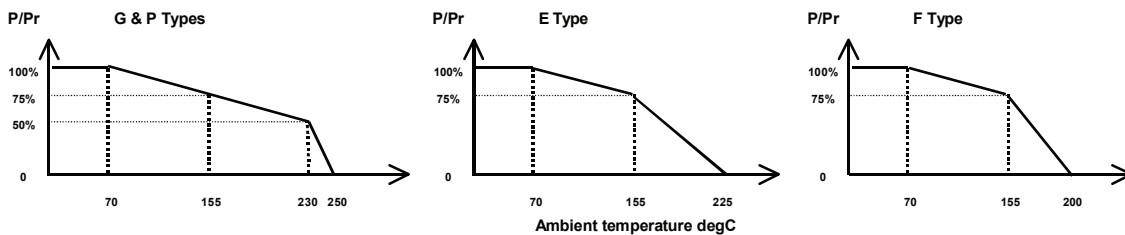
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HTCR Series

Performance Data

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

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.

The orientation of resistors in the tape is as follows:

Product	Description	Packing Orientation
E type <100R	Unplated wraparound terminations	Conventional- resistor element on top side
E type ≥100R	Unplated wraparound terminations	Flip-chip – resistor element on underside
F type	Plated wraparound terminations	Conventional- resistor element on top side
G type	Planar gold terminations	Conventional- resistor element on top side
P type	Planar PtAg terminations	Flip-chip – resistor element on underside

Ordering Procedure

Example: HTCR1206G-10K F T 3 (HTCR1206, planar gold terminations, 10 kilohms ±1%, Pb-free)



1	2	3		4	5	6	
Series	Size	Termination		Value	Tolerance	Packing	
HTCR	0805	E	Unplated polymer Ag wraparound	E24 = 3/4 characters	F = ±1%	T3	0805
	1206	F	Ni barrier & Sn plated wraparound	E96 = 3/4 characters	J = ±5%		1206
	2010	G	Planar gold	R = ohms			2010
	2512	P	Planar PtAg	K = kilohms M = megohms		T18	2512
							Up to 3000/reel
							Up to 1800/reel

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