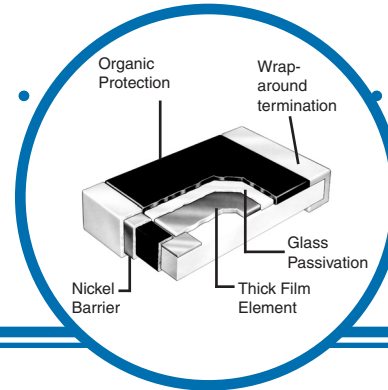


General Purpose Thick Film Chip Resistor

WCR Series

- Tolerances to $\pm 0.5\%$
- TCR down to $\pm 100\text{ppm}/^\circ\text{C}$
- Zero ohm jumpers available
- Wide ohmic range from 1Ω to $10\text{M}\Omega$
- Now supplied with RoHS compliant terminations



Electrical Data

IRC Type	TCR (ppm/ $^\circ\text{C}$)	Ohmic Range (Ω)		Rated Power @ 70°C (milliwatts)	Maximum Working Voltage (V)	Maximum Overload Voltage (V)	Operating Temperature Range ($^\circ\text{C}$)
		$\pm 5\%$	$\pm 1\%$				
WCR0201	± 300	10R - 91R	10R - 97R6	50	25	50	-55 to +155
	± 200	100R - 10M	100R - 1M				
WCR0402	± 400	1R0 - 10R	1R0 - 10R	63	50	100	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR0603	± 400	1R0 - 10R	1R0 - 10R	100	50	100	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR0805	± 400	1R0 - 10R	1R0 - 10R	125	150	200	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR1206	± 400	1R0 - 10R	1R0 - 10R	250	200	400	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR1210	± 400	1R0 - 10R	1R0 - 10R	250	200	400	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR2010	± 400	1R0 - 10R	1R0 - 10R	500	200	400	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				
WCR2512	± 400	1R0 - 10R	1R0 - 10R	1000	200	400	
	± 200	11R - 10M	11R - 100R				
	± 100	N/A	101R - 1M0				

General Note

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

General Purpose Thick Film Chip Resistor



Environmental Data

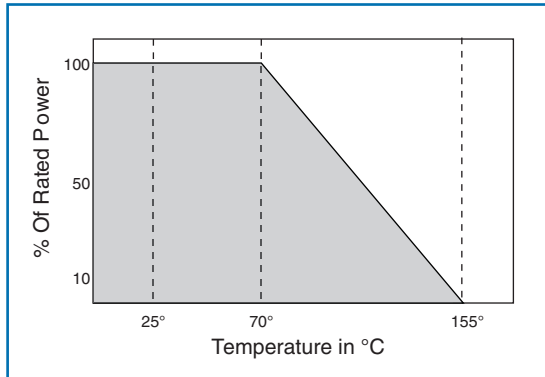
Test Conditions	Test Method	Max Change (5%)	Max Change (1%)
Short Time Overload	5 seconds 2.5 X Rated Power	$\pm 2.0\% + 0.1\Omega$	$\pm 1.0\% + 0.1\Omega$
Temperature Cycling	5 Cycles -55°C to +125°C	$\pm 1.0\% + 0.1\Omega$	$\pm 0.5\% + 0.1\Omega$
Humidity	240 Hours 40°C $\pm 2^\circ$ 90-95% RH	$\pm 3.0\% + 0.1\Omega$	$\pm 1.0\% + 0.1\Omega$
Load Life	1000 Hours 70°C $\pm 3^\circ$ 1.5 hours on 30 minutes off	$\pm 3.0\% + 0.1\Omega$	$\pm 1.0\% + 0.1\Omega$
Low Temperature Exposure	1000 Hours -55°C $\pm 3^\circ$	$\pm 1.0\% + 0.1\Omega$	$\pm 1.0\% + 0.1\Omega$
Effects of Solder Heat	10 ± 1 Seconds 260°C $\pm 5^\circ$	$\pm 1.0\% + 0.1\Omega$	$\pm 1.0\% + 0.1\Omega$
Solderability	3 ± 0.5 Seconds 235°C $\pm 5^\circ$	95% Min Coverage	95% Min Coverage

Physical Data (inches)

Model	L	W	H	a	b
WCR0201	0.024 \pm 0.002	0.012 \pm 0.002	0.009 \pm 0.002	0.005 \pm 0.002	0.006 \pm 0.002
WCR0402	0.039 \pm 0.004	0.020 \pm 0.002	0.014 \pm 0.002	0.008 \pm 0.004	0.010 \pm 0.004
WCR0603	0.063 \pm 0.004	0.032 \pm 0.006	0.020 \pm 0.004	0.012 \pm 0.008	0.012 \pm 0.008
WCR0805	0.079 \pm 0.006	0.049 \pm 0.006	0.020 \pm 0.004	0.016 \pm 0.008	0.012 \pm 0.008
WCR1206	0.125 \pm 0.006	0.061 \pm 0.006	0.024 \pm 0.004	0.018 \pm 0.008	0.018 \pm 0.008
WCR1210	0.126 \pm 0.004	0.102 \pm 0.006	0.024 \pm 0.004	0.020 \pm 0.010	0.020 \pm 0.008
WCR2010	0.197 \pm 0.004	0.098 \pm 0.006	0.024 \pm 0.004	0.023 \pm 0.010	0.020 \pm 0.008
WCR2512	0.248 \pm 0.004	0.126 \pm 0.006	0.024 \pm 0.004	0.023 \pm 0.010	0.020 \pm 0.008

General Purpose Thick Film Chip Resistor

Power Derating Chart



Packaging Reel Physical Data

Size	Tape	Qty	A (mm)	B (mm)	C (mm)	W (mm)
0201	Paper	15K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
0402	Paper	20K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
0603	Paper	5K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
0805	Paper	5K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
1206	Paper	5K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
1210	Paper	5K	2.0±0.5	13.0±0.5	21.0±0.5	10.0±1
2010	Paper	4K	2.0±0.5	13.0±0.5	21.0±0.5	13.8±1
2512	Plastic	4K	2.0±0.5	13.0±0.5	21.0±0.5	13.8±1

Ordering Data

Sample Part Number **WCR** - **WCR1206LF** - **1001** - **F** - **P** - **LT**

Model
 WCR00201LF, WCR0402LF, WCR0603LF, WCR0805LF
 WCR1206LF, WCR1210LF, WCR2010LF, WCR2512LF

Resistance
 3-digit resistance code for tolerances G and J.
 4-digit resistance code for tolerances F and D.

Tolerance
 J = ±5%, G = ±2%, F = ±1%, D = ±0.5%

Tape Type
 P = Paper, E = Plastic

Tape & Reel Packaging

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

Mouser Electronics

Authorized Distributor

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[WCR0603LF3650FPLT](#) [WCR0805LF4991FPLT](#) [WCR1210LF20R0FPLT](#) [WCR1210LF2802FPLT](#)
[WCR0805LF565JPLT](#) [WCR0805LF1000FPLT](#) [WCR0805LF5113FPLT](#) [WCR1210LF1432FPLT](#)
[WCR1206LF1R30FPLT](#)