Low Value Flat Chip Resistor

LRC/LRF Series

- **Standard 2512, 2010 and 1206 sizes**
- **Resistance values down to 0.003 ohms**
- **Leach resistant solder-plated copper wrap-around termination**
- **AEC-Q200 Qualified**

Electrical Data

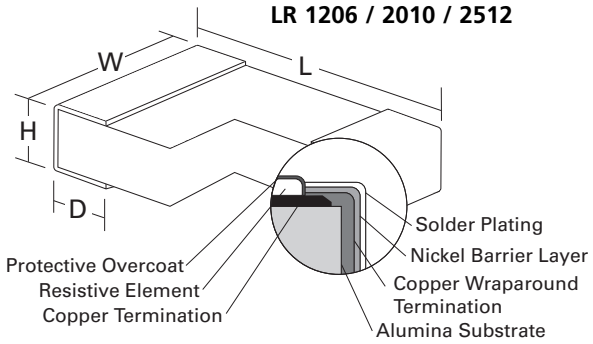
		LR1206	LR2010	LR2512
Power rating at 70°C	watts	0.5	1.0	1.5/2.0*
Resistance range	ohms	0R010 to 1R	0R003 to 1R	0R003 to 1R
Dielectric withstanding voltage	volts	200	200	200
TCR	ppm/°C	±100 (Contact factory for value below 0.050 ohms)		
Resistance tolerance	%	≤R005 5%, >R005 1, 2, 5%		
Temperature rise at rated power	°C	40	80	90
Pad and trace area for max power rating @ 70°C	mm^2	30	30	100

*2 Watts with total solder pad and trace size of 300 mm^2

Physical Data

Dimensions (mm)					
Size	L	W	H (max)	D	D1
LR1206	3.20±0.305	1.63±0.203	0.8	0.48±0.25	0.48±0.25
LR2010	5.23±0.38	2.64±0.25	0.8	0.48±0.25	0.48±0.25
LR2512	6.50±0.38	3.25±0.25	0.8	0.48±0.25	0.48±0.25

LR 1206 / 2010 / 2512



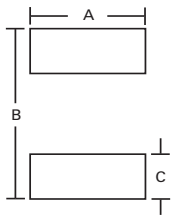
General Note
TT electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

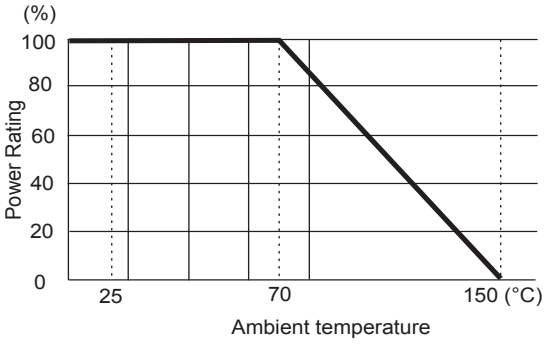
Low Value Flat Chip Resistor

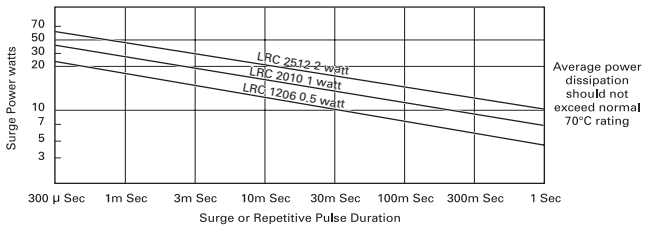
LRC/LRF Series

Dimensions (mm)	A	B	C
LR1206	2.0	4.0	1.25
LR2010	3.05	6.5	1.5
LR2512	3.7	7.75	1.5



AEC-Q200 Table 7 ref	Test	Method	Max. (add R05)		Typ. (@1R0)
3	High Temp. Exposure	MIL-STD-202 Method 108	ΔR%	0.5	0.2
4	Temperature Cycling	JESD22 Method JA-104	ΔR%	0.25	0.1
6	Moisture Resistance	MIL-STD-202 Method 106	ΔR%	0.5	0.2
7	Biased Humidity	MIL-STD-202 Method 103	ΔR%	0.5	0.2
8	Operational Life (Cyclic Load)	MIL-STD-202 Method 108	ΔR%	1	0.5
14	Vibration	MIL-STD-202 Method 204	ΔR%	0.5	0.05
15	Resistance to Soldering Heat	MIL-STD-202 Method 210	ΔR%	0.25	0.05
16	Thermal Shock	MIL-STD-202 Method 107	ΔR%	0.25	0.1
18	Solderability	J-STD-002	>95% coverage		
21	Board Flex	AEC-Q200-005	ΔR%	0.5	0.2
22	Terminal Strength	AEC-Q200-006	ΔR%	0.25	0.1
	Short Term Overload	6.25 x Pr for 2s	ΔR%	0.5	
	Low Temperature Storage	-65°C for 100 hours	ΔR%	0.5	
	Leach Resistance	Solder dip at 250°C	90s minimum		





Note:

1. Although 2010 and 2512 sizes have passed temperature cycling and thermal shock, it is in general not recommended that ceramic chips this large be used on FR4 in a severe temperature cycle environment due to the possibility of solder joint fatigue.
2. Full AEC-Q200 qualification applies to ohmic values ≥R01.

Ordering Procedure

Example: LRF2512 at 10 milliohms (hence flip-chip mounted) and 2% tolerance on a reel of 1800 pieces

L R F 2 5 1 2 – R 0 1 G W

Type

Mounting

	Conventional (element up)	Values > R025
F	Flip-chip (element down)	Values ≤ R025

Size

Value (use IEC62 code)

Tolerance (use IEC62 code)

F	1%
G	2%
J	5%

Packing

W	Tape	1206 or 2010	3000/reel	Standard
		2512	1800/reel	
T1		All sizes	1000/reel	

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.

© TT electronics plc

www.bitechnologies.com www.irctt.com www.welwyn-tt.com