

Lower Range High Voltage Chip Resistors

LHVC Series

- Superior voltage performance over commercial range chips
- 0805, 1206 and 2010 sizes
- Resistance 50Kohms to 10Mohms
- RoHS compliant



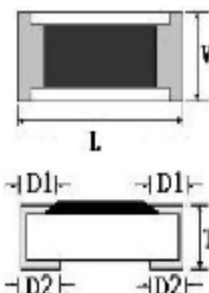
Electrical Data

		LHVC0805	LHVC1206	LHVC2010
Power rating at 70°C	watts	0.125	0.25	0.5
Resistance range	ohms	100K to 10M	100K to 10M	50K to 10M
Limiting element voltage	dc volts	300	400	800
5s Overload voltage	dc volts	800	1000	3000
Dielectric withstand voltage	volts	500V		
TCR	ppm/°C	±200		
Resistance tolerance	%	1, 5		
Standard values		E24 (5% tolerance) & E96 (1% tolerance)		
Ambient temperature range	°C	-55 to +155		

Physical Data

Dimensions in mm

Type	L	W	T	D1	D2	Nom wt. (g)
LHVC0805	2.00 ±0.15	1.25 +0.15/-0.10	0.55 ±0.10	0.40 ±0.20	0.40 ±0.20	0.005
LHVC1206	3.10 ±0.15	1.55 +0.15/-0.10	0.55 ±0.10	0.45 ±0.20	0.45 ±0.20	0.012
LHVC2010	5.00 ±0.10	2.50 +0.15/-0.10	0.55 ±0.10	0.60 ±0.25	0.50 ±0.20	0.036



Construction

Pd/Ag terminations are applied to the top and bottom of an alumina substrate. A resistive element is printed between the top face conductors, which is then adjusted to value and protected. A wraparound conductor is applied to join the top and bottom sides. The terminations are electroplated with a Ni barrier layer prior to plating with a Sn finish.

Solvent Resistance

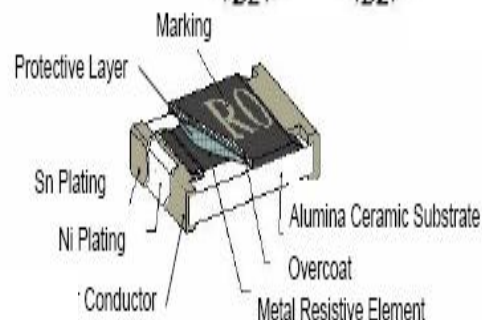
The body protection and marking are resistant to all normal industrial solvents suitable for printed circuits.

Flammability

The resistor will not burn or emit incandescent particles under any condition of applied temperature or overload.

Solderability

95% min coverage (MIL-STD 202F / 208H, 235C 2 secs)



General Note

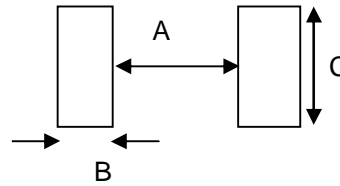
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Mounting (nominal dimensions in mm)

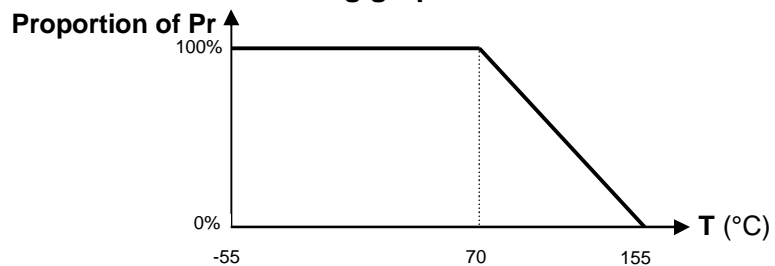
Type	A	B	C
LHVC0805	1.0	0.8	1.50
LHVC1206	2.0	1.0	1.75
LHVC2010	4.0	1.2	2.75



Performance Data

		Maximum
Load at rated power (1000hrs cyclic load at 70°C)	ΔR%	±3
De-rating from rated power at 70°C		See Graph
Short term overload (6.25 x rated power for 5s)	ΔR%	±2 (0805, 2010): ±3(1206)
Temperature rapid change (-55 / +155°C, 5 cycles)	ΔR%	±0.5 (1% tolerance chips): ±1 (5% tolerance chips)
Damp heat steady state	ΔR%	±3
Insulation resistance	ohms	>1000MΩ

Power de-rating graph



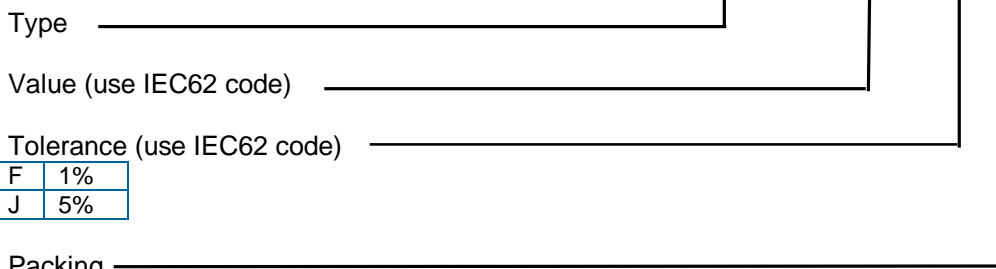
Packaging

The standard packing for LHVC0805 and 1206 parts is on 8mm wide paper tape wound on 178mm diameter reels. LHVC2010 parts are packed in plastic 12mm wide tape on a 178mm reel.

Ordering Procedure

Example: LHVC0805 at 100k ohms and 1% tolerance on reel of 5000 pieces:

LHVC0805 – 100K F T 5



F	1%
J	5%

Packing

T5	Tape	0805 / 1206	5,000 / reel	Standard
T4		2010	4,000 / reel	

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