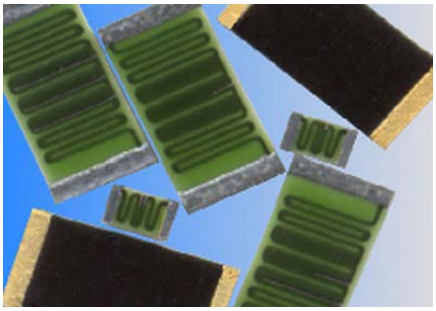
Features:

- Absolute voltage ratings up to 40,000 volts
- Ohmic values to 50G
- Available with wire bondable terminations
- Tight tolerances to 0.1%
- Utilizes fine film resistor deposition technology
- Superior pulse handling capabilities
- Low TCR to 25 ppm/ºC
- Low VCR to 1 ppm/volt
- Very low noise
- Ultra high stability
- Custom sizes available
- Higher or lower resistance values may be available (contact factory)
- Standard HVC parts are unmarked
- RoHS compliant

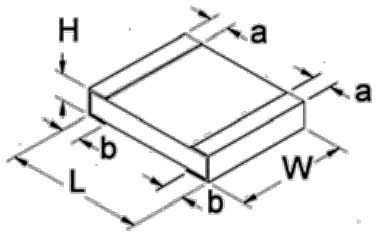


Electrical Specifications

Type / Code	Power Rating (Watts) @ 70ºC	Maximum Working Voltage (1)	Absolute Maximum Voltage (2)	Resistane Temperature Coefficient	Ohmic Range (Ω) and Tolerance							
					0.1%	0.25%	0.5%	1%	2%	5%	10%	20%
HVC0603	0.06W	400V	5KV	± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	-		10K - 10M	10K - 100M 10K - 500M	10K - 500M 10K - 1G		10K - 1G 10K - 10G	10K - 50G
HVC0805	0.2W	600V	10KV	± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	-		10K - 10M	10K - 500M 10K - 1G		10K - 1G 10K - 10G		10K - 50G
HVC1206	0.33	1500V	15KV	± 25 ppm/ºC ± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	1M - 10M 100K - 10M 10K - 10M	1M - 100M 100K - 100M 10K - 100M	100K - 500M 10K - 500M	10K - 1G	10K - 1G 10K - 10G			10K - 50G
HVC2010	1W	2000V	20KV	± 25 ppm/ºC ± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	1M - 10M 100K - 10M 10K - 10M	1M - 100M 100K - 100M 10K - 100M	100K - 500M 10K - 500M	10K - 1G	10K - 1G 10K - 10G			10K - 50G
HVC2512	2W	3000V	25KV	± 25 ppm/ºC ± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	1M - 100M 100K - 100M 10K - 100M	1M - 500M 100K - 500M 10K - 500M	100K - 1G 10K - 1G	10K - 10G			100K - 10G 100K - 50G	
HVC3512	3W	3500V	40KV	± 25 ppm/ºC ± 50 ppm/ºC ± 100 ppm/ºC ± 200 ppm/ºC	1M - 100M 100K - 100M 10K - 100M	1M - 500M 100K - 500M 10K - 500M	100K - 1G 10K - 1G	10K - 10G			100K - 10G 100K - 50G	

(1) The continuous maximum voltage applied cannot exceed the maximum power rating and is ohmic value dependent.
(2) To achieve, the terminals must be properly isolated from each other with appropriate potting material.
Note: Other case sizes and tolerances are available.

Mechanical Specifications



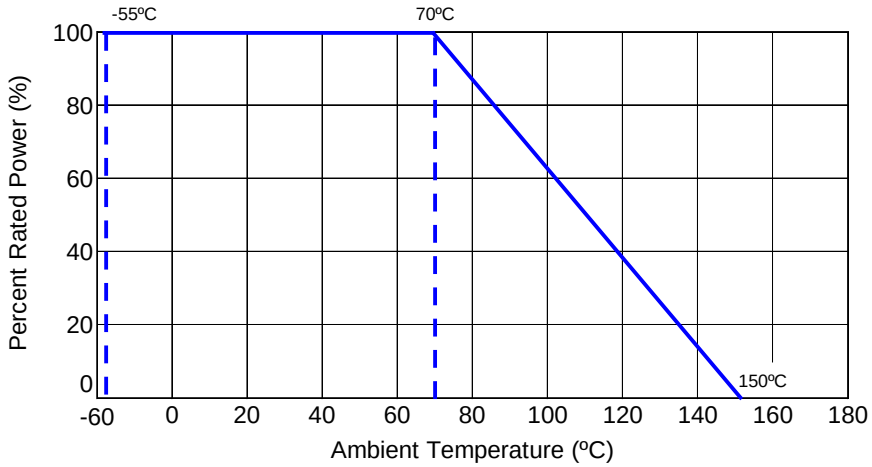
Type / Code	L Body Length	W Body Width	H Body Height (Max.)	a Top Termination	b Bottom Termination	Unit
HVC0603	0.063 ± 0.01 1.60 ± 0.25	0.031 ± 0.005 0.79 ± 0.13	0.020 0.51	0.010 ± 0.005 0.25 ± 0.13	0.012 ± 0.008 0.30 ± 0.20	inches mm
HVC0805	0.079 ± 0.01 2.01 ± 0.25	0.050 ± 0.005 1.27 ± 0.13	0.025 0.64	0.010 ± 0.005 0.25 ± 0.13	0.013 ± 0.008 0.33 ± 0.20	inches mm
HVC1206	0.126 ± 0.01 3.20 ± 0.25	0.063 ± 0.005 1.60 ± 0.13	0.030 0.76	0.010 ± 0.005 0.25 ± 0.13	0.020 ± 0.010 0.51 ± 0.25	inches mm
HVC2010	0.200 ± 0.01 5.08 ± 0.25	0.100 ± 0.005 2.54 ± 0.13	0.030 0.76	0.018 ± 0.010 0.46 ± 0.25	0.020 ± 0.010 0.51 ± 0.25	inches mm
HVC2512	0.250 ± 0.01 6.35 ± 0.25	0.125 ± 0.005 3.18 ± 0.13	0.030 0.76	0.020 ± 0.010 0.51 ± 0.25	0.024 ± 0.010 0.61 ± 0.25	inches mm
HVC3512	0.350 ± 0.01 8.89 ± 0.25	0.125 ± 0.005 3.18 ± 0.13	0.030 0.76	0.020 ± 0.010 0.51 ± 0.25	0.024 ± 0.010 0.61 ± 0.25	inches mm

Performance Characteristics

Test	Test Method	Acceptable Parameter
Load Life	MIL-STD-202G Method 108A Test Condition D	ΔR = 2%
Temperature Cycle (Thermal Shock)	MIL-STD-202G Method 107G Test Condition A	ΔR = 0.02%
Resistance to Soldering Heat	IPC/EIA J-STD-002A Paragraph 4.2.4	IPC/EIA J-STD-002A Paragraph 4.2.4.4
Solderability	IPC/EIA J-STD-002A Paragraph 4.2.2	IPC/EIA J-STD-002A Paragraph 4.2.2.4.2
Short Time Overload	MIL-PRF-55342H Pg. 32, Paragraph 4.8.6	MIL-PRF-55342H Pg 11, Paragraph 3.12

Operating Temperature Range: -55ºC to +150ºC

Power Derating Curve:



How to Order

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
H	**V**	**C**	**B**	**2**	**5**	**1**	**2**	**F**	**K**	**C**	**1**	**0**	**M**	**0**

Product Series	
HVCB	Solderable wraparound (100% matte tin)
HVCG	Wire bondable (gold)
HVCS	Solderable single surface (Sn/Pb)
HVCZ	Solderable single surface (100% matte tin)

Size	Power
0603	0.06W
0805	0.2W
1206	0.33W
2010	1W
2512	2W
3512	3W

Tolerance	
Code	Tol
B	0.1%
C	0.25%
D	0.5%
F	1%
G	2%
J	5%
K	10%
M	20%

Packaging			
Code	Description	Size	Quantity
T	7" Reel - Paper Tape	0603, 0805	5,000
	7" Reel - Plastic Tape	1206, 2010	4,000
		2512	2,000
K	7" Reel - Paper Tape	0603, 0805, 1206	1,000
	7" Reel - Plastic Tape	2010, 2512, 3512	
D	7" Reel - Paper Tape	0603, 0805, 1206	500
	7" Reel - Plastic Tape	2010, 2512, 3512	
B	Bulk	All Sizes	1,000

TCR	
Code	ppm
E	25
C	50
D	100
L	200
M	300

Resistance Value
Four characters with the multiplier used as the decimal holder.
10 Kohm = 10K0 1 Mohm = 1M00 10 Gohm = 10G0