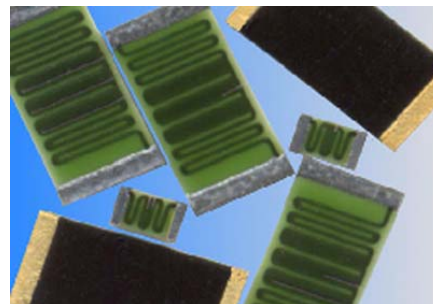


- Features:**
- Absolute voltage ratings up to 25,000 volts
  - Ohmic values to 50G
  - Available with wire bondable terminations
  - Tight tolerances to 0.5%
  - Utilizes fine film resistor deposition technology
  - Superior pulse handling capabilities
  - Low TCR to 25 ppm/°C
  - Low VCR to 1 ppm/volt
  - Very low noise
  - Ultra high stability
  - Custom sizes available
  - Standard HVC parts are unmarked
  - RoHS compliant / lead-free



**Electrical Specifications**

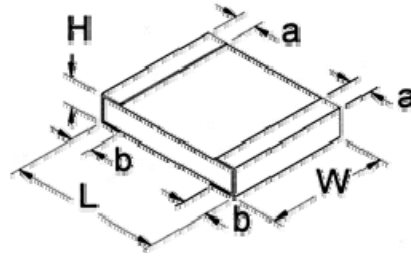
Type	Package Type	Power Rating (3) (Watts) @ 70°C	Maximum Working Voltage (1)	Absolute Maximum Voltage (2)	Resistive Temperature Coefficient	Ohmic Range (Ω) and Tolerance				
						0.5%	1%	2%	5%	10%/20%
HVC0603	0603	0.1W	400V	5KV	± 50 ppm/°C	10K - 10M	10K - 10M	10K - 500M	10K - 500M	10K - 500M
					± 100 ppm/°C	10K - 10M	10K - 10M	10K - 1G	10K - 1G	10K - 10G
					± 200 ppm/°C	10K - 10M	10K - 10M	10K - 1G	10K - 1G	10K - 10G
					± 300 ppm/°C	10K - 10M	10K - 10M	10K - 1G	10K - 1G	10K - 10G
HVC0805	0805	0.125W	600V	10KV	± 50 ppm/°C	10K - 10M	10K - 500M	10K - 500M	10K - 500M	10K - 500M
					± 100 ppm/°C	10K - 10M	10K - 1G	10K - 1G	10K - 1G	10K - 1G
					± 200 ppm/°C	10K - 10M	10K - 1G	10K - 1G	10K - 10G	10K - 10G
					± 300 ppm/°C	10K - 10M	10K - 1G	10K - 1G	10K - 10G	10K - 50G
HVC1206	1206	0.25W	1000V	15KV	± 25 ppm/°C	1M - 100M	1M - 100M	1M - 100M	1M - 100M	1M - 100M
					± 50 ppm/°C	100K - 500M	100K - 500M	100K - 500M	100K - 500M	100K - 500M
					± 100 ppm/°C	100K - 500M	100K - 1G	100K - 1G	100K - 1G	100K - 1G
					± 200 ppm/°C	100K - 500M	100K - 1G	100K - 10G	100K - 10G	100K - 10G
HVC2010	2010	0.5W	1,700V	20KV	± 25 ppm/°C	10M - 100M	10M - 100M	10M - 100M	10M - 100M	10M - 100M
					± 50 ppm/°C	100K - 500M	100K - 500M	100K - 500M	100K - 500M	100K - 500M
					± 100 ppm/°C	100K - 500M	100K - 1G	100K - 1G	100K - 1G	100K - 1G
					± 200 ppm/°C	100K - 500M	100K - 1G	100K - 10G	100K - 10G	100K - 10G
HVC2512	2512	1W	2,500V	25KV	± 25 ppm/°C	1M - 500M	1M - 500M	1M - 500M	1M - 500M	1M - 500M
					± 50 ppm/°C	100K - 1G	100K - 1G	100K - 1G	100K - 1G	100K - 1G
					± 100 ppm/°C	10K - 1G	10K - 10G	10K - 10G	10K - 10G	100K - 50G
					± 200 ppm/°C	10K - 1G	10K - 10G	10K - 10G	10K - 10G	100K - 50G
HVC3512	3512	1W	3,500V	40KV	± 25 ppm/°C	1M - 500M	1M - 500M	1M - 500M	1M - 500M	1M - 500M
					± 50 ppm/°C	100K - 1G	100K - 1G	100K - 1G	100K - 1G	100K - 1G
					± 100 ppm/°C	10K - 1G	10K - 10G	10K - 10G	10K - 10G	100K - 50G
					± 200 ppm/°C	10K - 1G	10K - 10G	10K - 10G	10K - 10G	100K - 50G
					± 300 ppm/°C	10K - 1G	10K - 10G	10K - 10G	10K - 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.

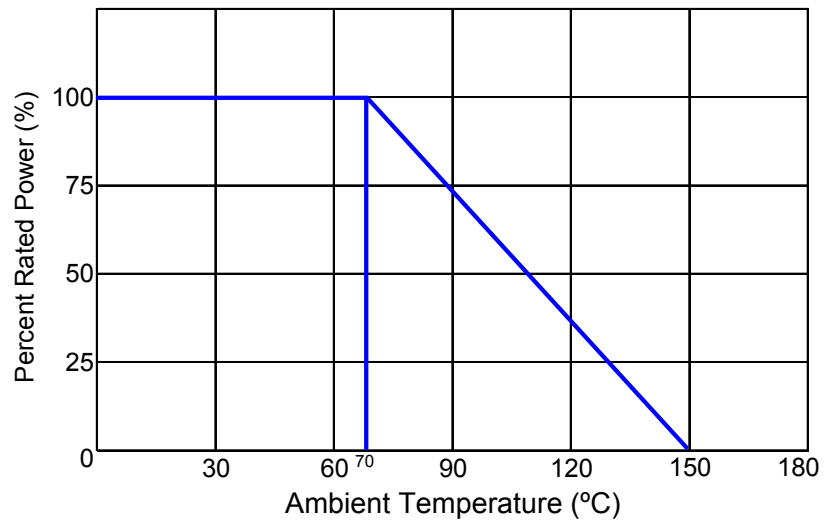
(3) Contact factory for higher power ratings: 0805: 0.2W 1206:0.33W 2010: 1W 2512: 2W

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/-0.005	0.031 ± 0.005	0.02	0.010 ± 0.005	0.012 ± 0.008	inches
	1.60 + 0.25/-0.13	0.79 ± 0.13	0.51	0.25 ± 0.13	0.30 ± 0.20	mm
HVC0805	0.079 + 0.01/-0.005	0.050 ± 0.005	0.025	0.010 ± 0.005	0.013 ± 0.008	inches
	2.01 + 0.25/-0.13	1.27 ± 0.13	0.64	0.25 ± 0.13	0.33 ± 0.20	mm
HVC1206	0.126 + 0.01/-0.005	0.063 ± 0.005	0.03	0.010 ± 0.005	0.020 ± 0.010	inches
	3.20 + 0.25/0.13	1.60 ± 0.13	0.76	0.25 ± 0.13	0.51 ± 0.25	mm
HVC2010	0.2 + 0.01/-0.005	0.100 ± 0.005	0.03	0.018 ± 0.010	0.020 ± 0.010	inches
	5.08 + 0.25/-0.13	2.54 ± 0.13	0.76	0.46 ± 0.25	0.51 ± 0.25	mm
HVC2512	0.25 + 0.01/-0.005	0.125 ± 0.005	0.03	0.020 ± 0.010	0.024 ± 0.010	inches
	6.35 + 0.25/-0.13	3.18 ± 0.13	0.76	0.51 ± 0.25	0.61 ± 0.25	mm
HVC3512	0.35 + 0.01/-0.005	0.125 ± 0.005	0.03	0.020 ± 0.010	0.024 ± 0.010	inches
	8.89 + 0.25/-0.13	3.18 ± 0.13	0.76	0.51 ± 0.25	0.61 ± 0.25	mm

**Power Derating Curve:**



Performance Characteristics		
Test	Test Method	Acceptable Parameter
Load Life	MIL-STD-202G Method 108A Test Condition D	$\Delta R = 2\%$
Temperature Cycle (Thermal Shock)	MIL-STD-202G Method 107G Test Condition A	$\Delta R = 0.02\%$
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: -55°C to +150°C

**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		Size	Power	Tolerance		Packaging				TCR		Resistance Value
Code	Description			Code	Tol	Code	Description	Size	Quantity	Code	ppm	
HVCB	Solderable wraparound (100% matte tin)	0603	0.1W	D	0.5%	T	7" reel - paper tape	0603, 0805	5,000	E	25	Four characters with the multiplier used as the decimal holder. 10 Kohm = 10K0 1 Mohm = 1M00 10 Gohm = 10G0
HVCG	Wire bondable (gold)	1206	0.25W	F	1%	G	7" reel - plastic tape	1206, 2010, 2512	4,000	C	50	
HVCS	Solderable single surface (Sn/Pb)	2010	0.5W	G	2%	K	10" reel - paper tape	0603, 0805	10,000	D	100	
HVCZ	Solderable single surface (100% matte tin)	2512	1W	J	5%	B	7" reel - paper tape	2512	1,000	L	200	
		3512	1W	K	10%	D	Bulk	0603, 0805	1,000	M	300	
				M	20%		7" reel - paper tape	0603, 0805, 1206	500			
							7" reel - plastic tape	2010, 2512, 3512	500			

Legacy Part Number (before January 3, 2011):

SEI Type & Termination	Size	TCR	Nominal Resistance	Tolerance	Packaging		
<b>HVCB</b>	<b>1206</b>	<b>T2</b>	<b>100M</b>	<b>5%</b>	<b>R</b>		
<b>Code</b>	<b>Termination</b>	<b>TCR</b>	<b>Tol</b>	<b>SEI Types</b>	<b>Pkg Qty</b>	<b>Description</b>	<b>Code</b>
HVCB	Solderable wraparound 100% matte tin	T0 = 200ppm T1 = 100ppm	± 0.5%	0603, 0805	5,000	7" reel - paper tape	R
HVCG	Wire bondable (gold)	T2 = 50ppm T9 = 25ppm	± 1%		10,000	10" reel - paper tape	G
HVCS	Solderable single surface (Sn/Pb)		± 2%		1,000	Bulk	A
HVCZ	Solderable single surface 100% matte tin		± 5%	1206, 2010, 2512	4,000	7" reel - plastic tape	R
			± 10%	2512	1,000	7" reel - paper tape	I
			± 20%	0603, 0805, 1206	500	7" reel - paper tape	D
				2010, 2512, 3512	500	7" reel - plastic tape	D