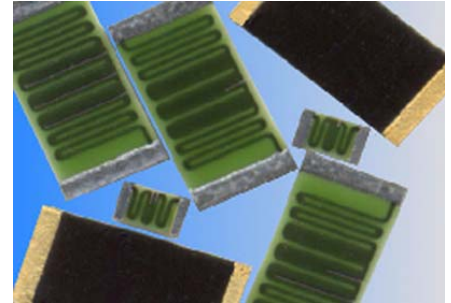


- Features:
- Absolute voltage ratings up to 25,000 volts
  - Ohmic values to 50G
  - Available with wire bondable terminations
  - Tight tolerances to 0.1%
  - Utilizes fine film resistor deposition technology
  - Superior pulse handling capabilities
  - Low TCR to 25 ppm/°C
  - Low VCR to 1 ppm/volt
  - Very low noise
  - Ultra high stability
  - Custom sizes available
  - Standard HVC parts are unmarked
  - RoHS compliant / lead-free



### Electrical Specifications

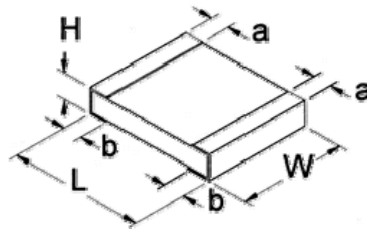
Type	Package Type	Power Rating (3) (Watts) @ 70°C	Maximum Working Voltage (1)	Absolute Maximum Voltage (2)	Resistive Temperature Coefficient	Ohmic Range (Ω) and Tolerance							
						0.1%	0.25%	0.5%	1%	2%	5%	10%	20%
HVC0603	0603	0.06W	400V	5KV	± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C			10K - 10M 10K - 10M 10K - 10M	10K - 100M 10K - 500M 10K - 500M	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 50G
HVC0805	0805	0.2W	600V	10KV	± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C			10K - 10M 10K - 10M 10K - 10M	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 50G
HVC1206	1206	0.33	1200V	15KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	1M - 10M 100K - 10M 10K - 10M 10K - 10M	1M - 100M 100K - 100M 10K - 100M 10K - 100M	1M - 100M 100K - 500M 10K - 500M 10K - 500M	1M - 100M 100K - 500M 10K - 1G 10K - 1G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G
HVC2010	2010	1W	1,700V	20KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	1M - 10M 100K - 10M 10K - 10M 10K - 10M	1M - 100M 100K - 100M 10K - 100M 10K - 100M	1M - 100M 100K - 500M 10K - 500M 10K - 500M	1M - 100M 100K - 500M 10K - 1G 10K - 1G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G	1M - 100M 100K - 500M 10K - 1G 10K - 10G
HVC2512	2512	2W	2,500V	25KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	1M - 100M 100K - 100M 10K - 100M 10K - 100M	1M - 500M 100K - 500M 10K - 500M 10K - 500M	1M - 500M 100K - 1G 10K - 1G 10K - 1G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 50G 100K - 50G	1M - 500M 100K - 1G 10K - 50G 100K - 50G
HVC3512	3512	3W	3,500V	40KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	1M - 100M 100K - 100M 10K - 100M 10K - 100M	1M - 500M 100K - 500M 10K - 500M 10K - 500M	1M - 500M 100K - 1G 10K - 1G 10K - 1G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 10G 10K - 10G	1M - 500M 100K - 1G 10K - 50G 100K - 50G	1M - 500M 100K - 1G 10K - 50G 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	Four characters with the multiplier used as the decimal holder. 10 Kohm = 10K0 1 Mohm = 1M00 10 Gohm = 10G0
HVCB	Solderable wraparound (100% matte tin)	0603	0.06W	D	0.5%	T	7" reel - paper tape	0603, 0805	5,000	E	25	
HVCG	Wire bondable (gold)	1206	0.33W	F	1%	T	7" reel - plastic tape	1206, 2010	4,000	C	50	
HVCS	Solderable single surface (Sn/Pb)	2010	1W	G	2%	K	7" reel - paper tape	0603, 0805, 1206	1,000	D	100	
HVCZ	Solderable single surface (100% matte tin)	2512	2W	J	5%	K	7" reel - plastic tape	2010, 2512, 3512			L	200
		3512	3W	K	10%	D	7" reel - paper tape	0603, 0805, 1206	500			
				M	20%	D	7" reel - plastic tape	2010, 2512, 3512				
						B	Bulk	All Sizes	1,000			

Legacy Part Number (before January 3, 2011):

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