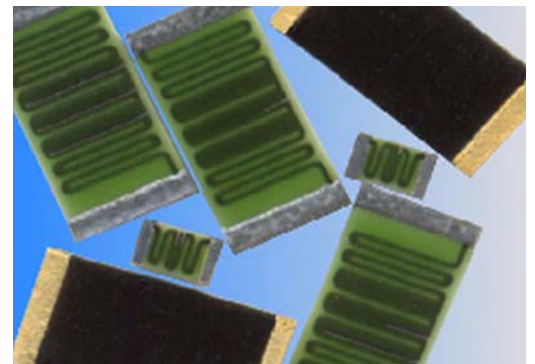


HVC Series — High Voltage Thick Film Chip Resistors

Features

- Voltage ratings to 3,000 volts
- Ohmic values to 10G; higher values possible
- 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
- RoHS compliant / lead-free



Electrical Specifications

Type	Package Type	Power Rating* (Watts) @ 70°C	Maximum Working Voltage**	Resistance Temperature Coefficient	Ohmic Range and Tolerance			
					0.5%	1%	5%	10%
HVC 0603	0603	0.100W	400V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	–	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 10G
HVC 0805	0805	0.125W	600V	±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	–	100K – 250M 10K – 250M 1K – 1G	100K – 250M 10K – 250M 1K – 1G	100K – 250M 10K – 250M 1K – 10G
HVC 1206	1206	0.250W	1,200V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 250M 10K – 250M 1K – 250M	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 10G
HVC 2010	2010	0.750W	1,700V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 250M 10K – 250M 10K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 10G
HVC 2512	2512	1.000W	3,000V***	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 250M 10K – 250M 10K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 10G

*Contact factory for higher power ratings:

0805: 0.2W

1206: 0.33W

2010: 1W

2512: 2W

**The continuous maximum voltage applied cannot exceed the maximum power rating and is ohmic value dependent.

***To achieve, the terminals must be properly isolated from each other with appropriate potting material

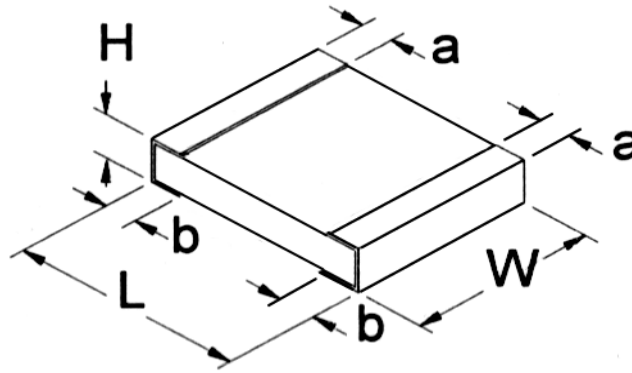
Note: Other case sizes and tolerances are available.

Operating Temperature Range: -55°C – 150°C

How to Order

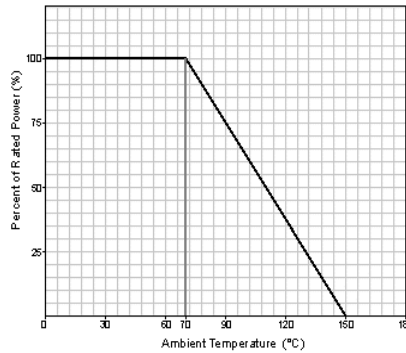
HVC		B	1206	T2	100M	5%	R	
SEI Type		Termination	Size	TCR	Nominal Resistance	Tolerance	Packaging	
Code	Termination		TCR	Tolerance	SEI Types	Pkg Qty	Description	Code
G	Wire bondable (gold)		T0 = 200ppm	± 0.25	0603, 0805, 1206	5,000	7" reel - Paper	R
S	Solderable single surface		T1 = 100ppm	± 0.50		10,000	10" reel - Paper	G
B	100% matte tin		T2 = 50ppm	± 1.00		1,000	Bulk	A
Z	Solderable single surface matte tin		T9 = 25ppm	± 2.00	2010, 2512	4,000	7" reel - Emboss	R
				± 5.00				
				± 10.00				

HVC Series—High Voltage Thick Film Chip Resistors



Mechanical Specifications

Type	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
HVC 0603	0.063 + 0.01/-0.005 1.60 + 0.25/-0.13	0.031 ± 0.005 0.80 ± 0.13	0.020 0.50	0.010 + 0.01/-0.005 0.25 + 0.25/-0.13	0.010 + 0.01/-0.005 0.25 + 0.25/-0.13	inches mm
HVC 0805	0.079 + 0.01/-0.005 2.00 + 0.25/-0.13	0.050 ± 0.005 1.25 ± 0.13	0.025 0.64	0.010 + 0.01/-0.005 0.25 + 0.25/-0.13	0.010 + 0.01/-0.005 0.25 + 0.25/-0.13	inches mm
HVC 1206	0.126 + 0.01/-0.005 3.20 + 0.25/-0.13	0.061 ± 0.007 1.5 ± 0.18	0.030 0.76	0.015 + 0.01/-0.005 0.38 + 0.25/-0.13	0.015 + 0.01/-0.005 0.38 + 0.25/-0.13	inches mm
HVC 2010	0.200 + 0.01/-0.005 5.08 + 0.25/-0.13	0.100 ± 0.005 2.54 ± 0.13	0.030 0.76	0.020 + 0.01/-0.005 0.51 + 0.25/-0.13	0.020 + 0.01/-0.005 0.51 + 0.25/-0.13	inches mm
HVC 2512	0.250 + 0.01/-0.005 6.35 + 0.25/-0.13	0.125 ± 0.005 3.18 ± 0.13	0.030 0.76	0.020 + 0.01/-0.005 0.51 + 0.25/-0.13	0.020 + 0.01/-0.005 0.51 + 0.25/-0.13	inches mm



Performance Characteristics

Test	Test Method	Acceptable Parameter
Load Life	MIL-STD-202G Method 108A Test Condition D	$\Delta R = \pm 2\%$
Temperature Cycle (Thermal Shock)	MIL-STD-202G Method 107G Test Condition A	$\Delta R = \pm 0.02\%$
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