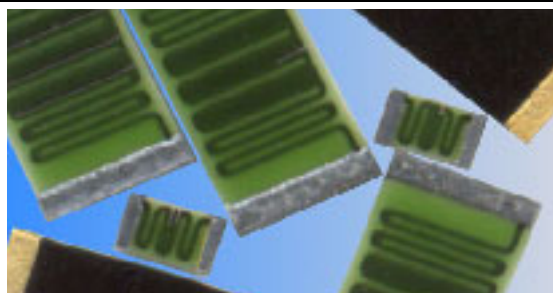


HVC Series — High Voltage Chip Resistors

Features

- Voltage ratings to 40,000 volts
- Ohmic values to 10G; higher values possible
- 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
- RoHS compliant / lead-free



Electrical Specifications

Type	Package Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Resistance Temperature Coefficient	Ohmic Range and Tolerance			
					0.25%	0.5%	1%	5%
HVC 0402	0402	0.04	100	±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 – 10G
HVC 0603	0603	0.06	400	±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 – 10G
HVC 0805	0805	0.20	750	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 100M 100K – 250M 100K – 250M	100K – 1M 100K – 250M 10K – 250M 1K – 250M	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 10G
HVC 1206	1206	0.33	1,000	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 100M 100K – 250M 100K – 250M	100K – 1M 100K – 250M 10K – 250M 1K – 250M	100K – 1M 100K – 250M 10K – 250M 1K – 1G	100K – 1M 100K – 250M 10K – 250M 1K – 10G
HVC 2010	2010	1.00	1,700	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 100M 100K – 250M 100K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 10G
HVC 2512	2512	2.00	2,500	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C ±200 ppm/°C	100K – 1M 100K – 100M 100K – 250M 100K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 250M	100K – 1M 100K – 250M 10K – 250M 10K – 1G	100K – 1M 100K – 250M 10K – 250M 10K – 10G

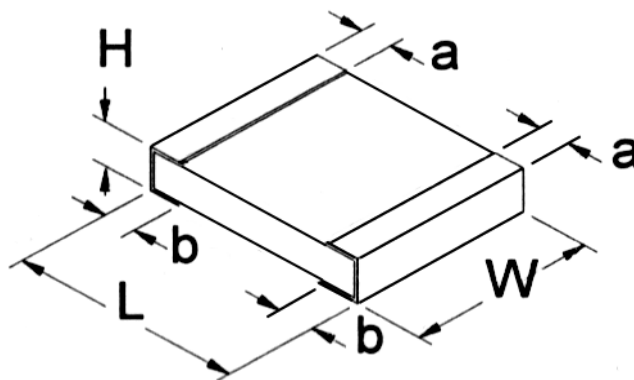
*The continuous maximum voltage applied cannot exceed the maximum power rating and is ohmic value dependent.

Note: Other case sizes and tolerances are available.

How to Order

HVC	B	1206	T2	100M	5%	R
SEI Type	Termination	Size	TCR	Nominal Resistance	Tolerance	Packaging
Code	Termination		TCR	Code	Description	Pkg Qty
G	Wire bondable (gold)		T0 = 200ppm	R	7" reel - paper	5,000
S	Solderable single surface		T1 = 100ppm	A	Bulk	1,000
U	Bondable wrap around		T2 = 50ppm	I	7" reel - paper	1,000
B	Solderable (solder coated with nickel barrier)		T9 = 25ppm			

HVC Series — High Voltage Chip Resistors



Mechanical Specifications

Type	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
HVC 0402	0.040 ± 0.003 1.00 ± 0.13	0.020 ± 0.005 0.50 ± 0.13	0.015 0.38	0.010 ± 0.005 0.25 ± 0.13	0.010 ± 0.005 0.25 ± 0.13	inches mm
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	0.063 ± 0.005 1.60 ± 0.13	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

Note: 0202 and 0303 case sizes available only with wire bondable terminations.

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