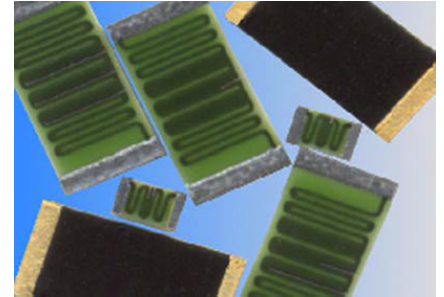


HVC Series

High Voltage Thick Film Chip Resistors

Stackpole Electronics, Inc.
Resistive Product Solutions

- 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
 - 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 and Tolerance				
						0.5%	1%	2%	5%	10%
HVC 0603	0603	0.100W	400V	5KV	± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	10K - 10M 10K - 10M 10K - 10M 10K - 10M	10K - 10M 10K - 10M 10K - 10M 10K - 10M	10K - 500M 10K - 1G 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G 10K - 1G	10K - 500M 10K - 10G 10K - 10G 10K - 10G
HVC 0805	0805	0.125W	600V	10KV	± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	10K - 10M 10K - 10M 10K - 10M 10K - 10M	10K - 500M 10K - 1G 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 1G 10K - 1G	10K - 500M 10K - 1G 10K - 10G 10K - 10G	10K - 500M 10K - 1G 10K - 10G 10K - 50G
HVC 1206	1206	0.250W	1000V	15KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	1M - 100M 100K - 500M 100K - 500M 100K - 500M	1M - 100M 100K - 500M 100K - 1G 100K - 1G	1M - 100M 100K - 500M 100K - 1G 100K - 10G	1M - 100M 100K - 500M 100K - 1AG 100K - 10G	1M - 100M 100K - 500M 100K - 1G 100K - 10G 100K - 50G
HVC 2010	2010	0.500W	1,700V	20KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	10M - 100M 100K - 500M 100K - 500M 100K - 500M	10M - 100M 100K - 500M 100K - 1G 100K - 1G	10M - 100M 100K - 500M 100K - 1G 100K - 10G	10M - 100M 100K - 500M 100K - 1G 100K - 10G	10M - 100M 100K - 500M 100K - 1G 100K - 10G 100K - 50G
HVC 2512	2512	1.000W	2,500V	25KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	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 100K - 1G 10K - 10G	1M - 500M 100K - 1G 100K - 50G 100K - 50G 100K - 50G
HVC 3512	3512	1.000W	3,500V	40KV	± 25 ppm/°C ± 50 ppm/°C ± 100 ppm/°C ± 200 ppm/°C ± 300 ppm/°C	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 100K - 1G 10K - 10G	1M - 500M 100K - 1G 100K - 50G 100K - 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

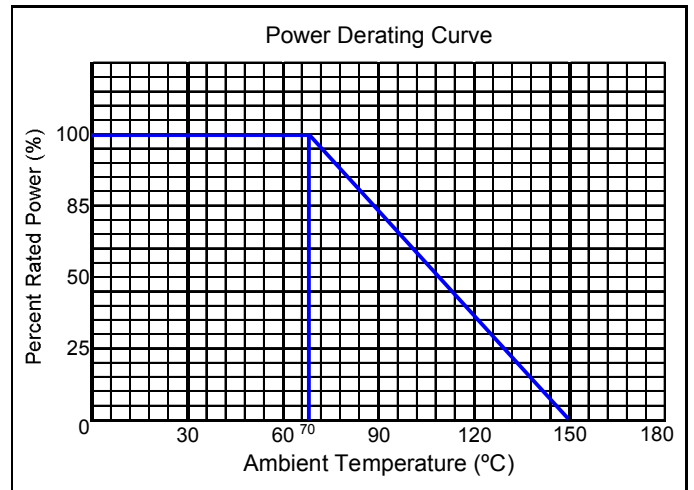
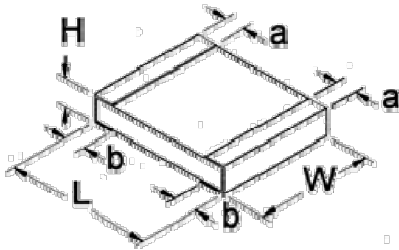
Note: Other case sizes and tolerances are available.

How to Order

SEI Type & Termination		Size	TCR	Nominal Resistance	Tolerance	Packaging			
HVCB		1206	T2	100M	5%	R			
Code	Termination	TCR		Tolerance		SEI Types	Pkg Qty	Description	Code
HVCG	Wire bondable (gold)	T0 = 200ppm		± 0.5%		0603, 0805	5,000	7" reel - Paper	R
HVCS	Solderable single surface	T1 = 100ppm		± 1%			10,000	10" reel - Paper	G
HVCB	100% matte tin	T2 = 50ppm		± 2%			1,000	Bulk	A
HVCZ	Solderable single surface matte tin	T9 = 25ppm		± 5%		1206, 2010, 2512	4,000	7" reel - Emboss	R
				± 10%		2512	1,000	7" reel - Paper	I

Rev Date: 10/30/2009

This specification may be changed at any time without prior notice
Please confirm technical specifications before you order and/or use.



Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
HVC 0603	0.063 ± 0.01/-0.005 1.6 ± 0.25/-0.13	0.031 ± 0.005 0.8 ± 0.13	0.02 0.5	0.01 ± 0.01/-0.005 0.25 ± 0.25/-0.13	0.01 ± 0.01/-0.005 0.25 ± 0.25/-0.13	inches mm
HVC 0805	0.079 ± 0.01/-0.005 2 ± 0.25/-0.13	0.05 ± 0.005 1.25 ± 0.13	0.025 0.64	0.01 ± 0.01/-0.005 0.25 ± 0.25/-0.13	0.01 ± 0.01/-0.005 0.25 ± 0.25/-0.13	inches mm
HVC 1206	0.126 ± 0.01/-0.005 3.2 ± 0.25/0.13	0.061 ± 0.007 1.5 ± 0.18	0.03 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	0.2 ± 0.01/-0.005 5.08 ± 0.25/-0.13	0.100 ± 0.005 2.54 ± 0.13	0.03 0.76	0.02 ± 0.01/-0.005 0.51 ± 0.25/-0.13	0.02 ± 0.01/-0.005 0.51 ± 0.25/-0.13	inches mm
HVC 2512	0.25 ± 0.01/-0.005 6.35 ± 0.25/-0.13	0.125 ± 0.005 3.18 ± 0.13	0.03 0.76	0.02 ± 0.01/-0.005 0.51 ± 0.25/-0.13	0.02 ± 0.01/-0.005 0.51 ± 0.25/-0.13	inches mm
HVC 3512	0.35 ± 0.01/-0.005 8.89 ± 0.25/-0.13	0.125 ± 0.005 3.18 ± 0.13	0.03 0.76	0.02 ± 0.01/-0.005 0.51 ± 0.25/-0.13	0.02 ± 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	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: -55°C to +150°C