HVC Series

High Voltage Thick Film Chip Resistor

Features:

- Ohmic values to 50G
- Available with wire bondable terminations
- Tight tolerances to 0.1%
- Utilizes fine film resistor deposition technology

Absolute voltage ratings up to 40,000 volts

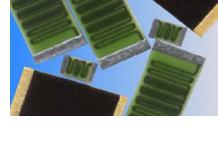
- Superior pulse handling capabilities
- Low TCR to 25 ppm/°C
- Low VCR to 1 ppm/volt
- Very low noise
- Ultra high stability
- Custom sizes available
- Higher or lower resistance values may be available (contact factory)
- Standard HVC parts are unmarked
- **RoHS** compliant

					Electr	ical Spe	cificatio	ns								
Type /	Power Rating	Maximum Working	Absolute Maximum	Resistane		Ohmic Range (Ω) and Tolerance										
51 0		Voltage (2)	Temperature Coefficient	0.1%	0.25%	0.5%	1%	2%	5%	10%	20%					
				± 50 ppm/ºC				10K - 100M		10K -	500M					
HVC0603	0.06W	400V	5KV	± 100 ppm/ºC	-		10K - 10M	10K - 500M	10K	16	10K	- 1G				
				± 200 ppm/ºC				TUK - 500IVI	TUR	- 10	10K - 10G	10K - 50G				
				± 50 ppm/ºC						10K - 500M						
HVC0805	0.2W	600V	10KV	± 100 ppm/ºC	-		10K - 10M	10K	- 1G		10K - 1G					
				± 200 ppm/ºC				Torr	-	10K -	· 10G	10K - 50G				
	0.33	1500V	15KV	± 25 ppm/ºC	1M - 100M	1M - 100M										
HVC1206				± 50 ppm/⁰C	100K - 100M	100K - 100M	DOK - 100M		100K -	100K - 500M						
				± 100 ppm/ºC	10K - 100M	10K - 100M	10K - 500M	10K - 1G	-		- 1G					
				± 200 ppm/ºC						10K - 10G		10K - 50G				
	1W	2000V	20KV	± 25 ppm/ºC	1M - 100M				1M - 100M							
HVC2010				± 50 ppm/ºC	100K - 100M 100K - 100M											
				± 100 ppm/ºC	10K - 100M	10K - 100M	10K - 500M	10K - 1G	-		- 1G					
				± 200 ppm/ºC					10K - 10G			10K - 50G				
			25KV	± 25 ppm/⁰C	1M - 100M		1M - 500M	10								
HVC2512	2W	3000V		± 50 ppm/⁰C	100K - 100M	100K - 500M		100K -		- 1G						
				± 100 ppm/ºC	10K - 100M	10K - 500M	10K - 1G		10K - 10G		100K - 10G					
				± 200 ppm/ºC		100K - 50G										
	3W	3500V	V 40KV	± 25 ppm/⁰C	1M - 100M	1M - 500M 100K - 500M 100K - 1G										
HVC3512				± 50 ppm/ºC	100K - 100M	100K - 500M			100K	- 1G	1001	100				
				± 100 ppm/ºC	10K - 100M	10K - 500M	10K - 1G		10K - 10G		100K - 10G					
				± 200 ppm/ºC							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.

Note: Other case sizes and tolerances are available.



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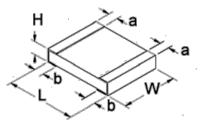
Resistive Product Solutions

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Mechanical Specifications



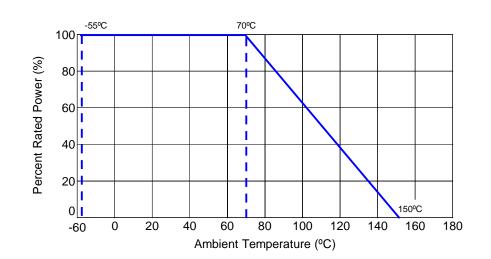
Type / Code	L Body Length	W Body Width	H Body Height (Max.)	a Top Termination	b Bottom Termination	Unit
HVC0603	0.063 ± 0.01	0.031 ± 0.005	0.020	0.010 ± 0.005	0.012 ± 0.008	inches
	1.60 ± 0.25	0.79 ± 0.13	0.51	0.25 ± 0.13	0.30 ± 0.20	mm
HVC0805	0.079 ± 0.01	0.050 ± 0.005	0.025	0.010 ± 0.005	0.013 ± 0.008	inches
	2.01 ± 0.25	1.27 ± 0.13	0.64	0.25 ± 0.13	0.33 ± 0.20	mm
HVC1206	0.126 ± 0.01	0.063 ± 0.005	0.030	0.010 ± 0.005	0.020 ± 0.010	inches
	3.20 ± 0.25	1.60 ± 0.13	0.76	0.25 ± 0.13	0.51 ± 0.25	mm
HVC2010	0.200 ± 0.01	0.100 ± 0.005	0.030	0.018 ± 0.010	0.020 ± 0.010	inches
	5.08 ± 0.25	2.54 ± 0.13	0.76	0.46 ± 0.25	0.51 ± 0.25	mm
HVC2512	0.250 ± 0.01	0.125 ± 0.005	0.030	0.020 ± 0.010	0.024 ± 0.010	inches
	6.35 ± 0.25	3.18 ± 0.13	0.76	0.51 ± 0.25	0.61 ± 0.25	mm
HVC3512	0.350 ± 0.01	0.125 ± 0.005	0.030	0.020 ± 0.010	0.024 ± 0.010	inches
	8.89 ± 0.25	3.18 ± 0.13	0.76	0.51 ± 0.25	0.61 ± 0.25	mm

Performance Characteristics								
Test	Test Specification							
Short Time Overload	0.1%							
Load Life	0.1%							
Temperature Cycle	0.1%							
Moisture Resistance	0.1%							
Shock	0.05%							
Vibration	0.05%							
Dielectric Withstanding Voltage	0.05%							
Resistance to Soldering Heat	0.05%							

Parameter	Typical					
Operating Temperature	-55°C to 150°C					
TCR	measured from 25°C to 75°C					
Pulse Capability	10X rated wattage					
	Consult factory for custom pulse applications					
Resistance Value	Measured at 100V					
	Consult factory for custom test voltages					

Operating Temperature Range: -55°C to +150°C

Resistive Product Solutions



RoHS Compliance

Power Derating Curve:

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 2). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament.

	RoHS Compliance Status											
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)						
HVC	High Voltage Thick Film Surface Mount Chip Resistor	SMD	YES(1)	100% Matte Sn ("T")	Always	Always						

Note (1): RoHS Compliant by means of exemption 7c-I.

"Conflict Metals" Commitment

We at Stackpole electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the Easter Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order														
1	2 3	4	5		6	7	8	9		10 11	12	13		14 15
н V С		В	2		5	1	2	F		КС	1	0		M 0
													1	
	Product Series	Size	Power	Tolerance			Packaging			jing	TCR		Resistance Value	
HVCB	Solderable wraparound	0603	0.06W	Code	Tol	Code	Description			Size	Quantity		ppm	Four characters with the
пусь	(100% matte tin)	0805	0.2W	В	0.1%		7" Rool	Paper Tape		0603, 0805	5,000	E	25	multiplier used as the
HVCG	Wire bondable (gold)	1206	0.33W	С	0.25%		7" Reel - Paper Tape			1206	4,000	С	50	decimal holder.
HVCS	Solderable single surface	2010	1W	D	0.5%		7" Reel - Plastic Tape			2010	4,000	D	100	10 Kohm = 10K0
11003	(Sn/Pb)	2512	2W	F	1%		7 Reel - Flastic Tape		,	2512	2,000	L	200	1 Mohm = 1M00
HVCZ	Solderable single surface	3512	3W	G	2%	ĸ	7" Reel - Paper Tape			0603, 0805, 1206	1,000	М	300	10 Gohm = 10G0
(100% matte tin)			-	J	5%	N.	7" Reel - Plastic Tape		•	2010, 2512, 3512	1,000		-	
				K	10%	п	7" Reel - Paper Tape			0603, 0805, 1206	500			
			М	20%		7" Reel -	Plastic Tape	,	2010, 2512, 3512	500				
		-	В	E	Bulk		All Sizes	1,000						