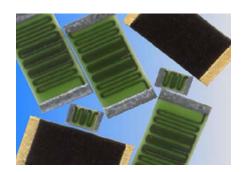
# Stackpole Electronics, Inc.

High Voltage Thick Film Chip Resistor

Resistive Product Solutions

#### Features:

- Absolute voltage ratings up to 40,000 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
- Higher or lower resistance values may be available (contact factory)
- Standard HVC parts are unmarked
- RoHS compliant



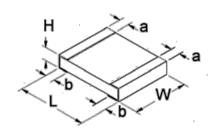
	Electrical Specifications											
Type /	Power Rating (Watts) @ 70°C	Maximum Working Voltage (1)	Absolute Maximum Voltage (2)	Resistane	Ohmic Range (Ω) and Tolerance							
Code				Temperature Coefficient	0.1%	0.25%	0.5%	1%	2%	5%	10%	20%
				± 50 ppm/°C				10K - 100M	10K - 500M			
HVC0603	0.06W	400V	5KV	± 100 ppm/°C	-	-	10K - 10M 10K - 500M	10K 500M	101/	10K - 1G		- 1G
				± 200 ppm/°C				TOK	- 10	10K - 10G	10K - 50G	
		W 600V	10KV	± 50 ppm/°C			10K -					
HVC0805	0.2W			± 100 ppm/°C		-	10K - 10M	10K	- 16		10K - 1G	
				± 200 ppm/°C				1010	10	10K	- 10G	10K - 50G
		1500V	15KV	± 25 ppm/°C	1M - 100M	1M - 100M						
HVC1206	0.33			± 50 ppm/°C	100K - 100M	1 100K - 100M 100K - 500M						
11101200				± 100 ppm/°C	10K - 100M	10K - 100M	10K - 500M	10K - 1G	10K - 1G			
				± 200 ppm/°C		761 TOUR TOUR TOUR TOUR TOUR				10K - 50G		
	1W	2000V	20KV	± 25 ppm/°C	1M - 100M	1M - 100M						
HVC2010				± 50 ppm/°C	100K - 100M							
				± 100 ppm/°C	10K - 100M	10K - 100M	10K - 500M	10K - 1G	10K - 1G			
				± 200 ppm/°C		•			10K - 50G			
	2W	3000V	25KV	± 25 ppm/°C	1M - 100M			1M - 500M				
HVC2512				± 50 ppm/°C	100K - 100M	100K - 500M	00K - 500M 100K - 1G					
11002312				± 100 ppm/°C	10K - 100M	10K - 500M	10K - 1G		10K - 10G		100K	
				± 200 ppm/°C			1011				100K - 50G	
	3W	3500V	40KV	± 25 ppm/°C	1M - 100M	1M - 500M						
HVC3512				± 50 ppm/°C	100K - 100M	100K - 500M	· · · · · · · · · · · · · · · · · · ·					
11003312				± 100 ppm/°C	10K - 100M	10K - 500M	10K - 1G		10K - 10G		100K - 10G	
				± 200 ppm/°C							100K - 50G	

<sup>(1)</sup> The continuous maximum voltage applied cannot exceed the maximum power rating and is ohmic value dependent.

Note: Other case sizes and tolerances are available.

<sup>(2)</sup> To achieve, the terminals must be properly isolated from each other with appropriate potting material.

## **Mechanical Specifications**

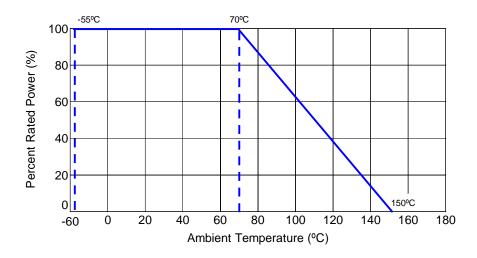


Type / Code	L Body Length	W Body Width	H Body Height (Max.)	a Top Termination	b Bottom Termination	Unit
HVC0603	0.063 ± 0.01	0.031 ± 0.005	0.020	0.010 ± 0.005	0.012 ± 0.008	inches
	1.60 ± 0.25	0.79 ± 0.13	0.51	0.25 ± 0.13	0.30 ± 0.20	mm
HVC0805	0.079 ± 0.01	0.050 ± 0.005	0.025	0.010 ± 0.005	0.013 ± 0.008	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	$0.010 \pm 0.005$	0.020 ± 0.010	inches
	3.20 ± 0.25	1.60 ± 0.13	0.76	$0.25 \pm 0.13$	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	Typical Performance					
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 Canability	10X rated wattage			
Pulse Capability	Consult factory for custom pulse applications			
Resistance Value	Measured at 100V			
Resistance value	Consult factory for custom test voltages			

### **Power Derating Curve:**



#### **RoHS Compliance**

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.

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High Voltage Thick Film Chip Resistor

Resistive Product Solutions

### **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.

