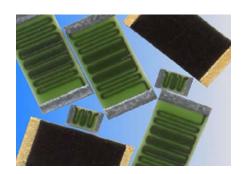
# Stackpole Electronics, Inc.

High Voltage Thick Film Chip Resistor

Resistive Product Solutions

#### Features:

- 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 (up to 1Tohm) or lower resistance values may be available (contact factory)
- Standard HVC parts are unmarked
- · RoHS compliant and halogen-free



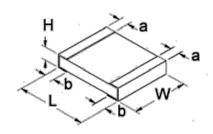
Electrical Specifications											
Type / Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage (1)	Resistane Temperature Coefficient	Ohmic Range $(\Omega)$ and Tolerance							
				0.1%	0.25%	0.5%	1%	2%	5%	10%	20%
HVC0603	0.06W	400V	± 50 ppm/°C				10K - 100M	10K - 500M			
			± 100 ppm/°C	-		10K - 10M	10K - 500M	10K - 1G		10K	- 1G
			± 200 ppm/°C				10K - 300W	TOIX	.0	10K - 10G	10K - 50G
	0.2W	600V	± 50 ppm/°C				10K - 500M				
HVC0805			± 100 ppm/°C			10K - 10M	10K - 1G		10K - 1G		
			± 200 ppm/°C				TOIX	- 10	10K -		10K - 50G
	0.33	1500V	± 25 ppm/°C	1M - 100M			1M - 100M				
HVC1206			± 50 ppm/°C	100K - 100M	100K - 100M	100K - 500M					
11101200			± 100 ppm/°C	10K - 100M 10K - 1	10K - 100M	10K - 500M	10K - 1G	10K - 1G			
			± 200 ppm/°C		1010 100101	TOTA GOOM	1010 10		10K - 10G	10K - 50G	
	1W	2000V	± 25 ppm/°C	1M - 100M		1M - 100M					
HVC2010			± 50 ppm/°C	100K - 100M	100K - 100M	100K - 500M					
			± 100 ppm/°C	10K - 100M	0K - 100M   10K - 100M	M 10K - 500M	10K - 1G	10K - 1G			
			± 200 ppm/°C						10K - 10G		10K - 50G
	2W	3000V	± 25 ppm/°C	1M - 100M				1M - 500M			
HVC2512			± 50 ppm/°C	100K - 100M	100K - 500M		100K - 1G				
			± 100 ppm/°C	10K - 100M	10K - 500M	10K - 1G		10K - 10G		100K - 10G	
			± 200 ppm/°C							100K - 50G	
HVC3512	3W	3500V	± 25 ppm/°C	1M - 100M				1M - 500M			
			± 50 ppm/°C	100K - 100M	1 100K - 500M		100K - 1G				
			± 100 ppm/°C	10K - 100M   10K - 500M	10K - 500M	10K - 1G		10K - 10G		100K - 10G	
			± 200 ppm/°C			70				100K - 50G	

Proper terminal isolation is required to achieve the voltage ratings for each given size.

Note: Other case sizes and tolerances are available.

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

## Mechanical Specifications

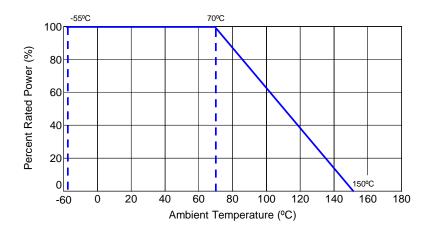


Type / Code Body Length		W Body Width	H Body Height (Max.)	a Top Termination	b Bottom Termination	Unit
HVC0603	0.063 ± 0.01	0.031 ± 0.005	0.020	0.010 ± 0.005	0.012 ± 0.008	inches
	1.60 ± 0.25	0.79 ± 0.13	0.51	0.25 ± 0.13	0.30 ± 0.20	mm
HVC0805	0.079 ± 0.01	0.050 ± 0.005	0.025	0.010 ± 0.005	0.013 ± 0.008	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	$0.020 \pm 0.010$	0.024 ± 0.010	inches
	6.35 ± 0.25	3.18 ± 0.13	0.76	$0.51 \pm 0.25$	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 Capability	10X rated wattage		
Fulse Capability	Consult factory for custom pulse applications		
Resistance Value	Measured at 100V		
Nesistance value	Consult factory for custom test voltages		

### **Power Derating Curve:**



0.315

8.00

#### Recommended Pad Layout Type / Code В C Unit 0.031 0.035 0.083 inches HVC0603 0.80 2.10 0.90 mm 0.047 0.118 0.051 inches HVC0805 1.20 3.00 1.30 mm 0.087 0.165 0.063 inches HVC1206 2.20 4.20 1.60 mm 0.138 0.240 0.110 inches HVC2010 3.50 6.10 2.80 mm

#### **RoHS Compliance**

HVC2512

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.

0.150

3.80

RoHS Compliance Status								
Standard Product Series	oduct Description		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.

0.138

3.50

inches

mm

Resistive Product Solutions

#### "Conflict Metals" Commitment

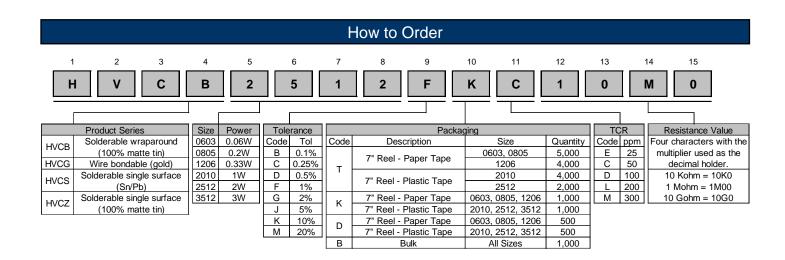
We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the Eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely 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.



# **X-ON Electronics**

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KIT-RNCS0603BKE EWT50JB20K0 RMCF2512FT4K02 EWT225JB30K0 EWT225JB50R0 EWT100JB1K00 RMCF2010JT33K0

RSF1JTR220 KIT-RMCF0805FT-06 RNV14FAL4M70 CFM14JT180R EWT225JB2R00 EWT225JB100R EWT50JB1K00 RSF1JT33K0

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12 KIT-RMCF1206FT-06 RNCF0805CKC10K0 KIT-RMCF0805FT-04 RC1/4-12K-5%-TR RMCF0805FT32K4 EWT100JB5R00

CF14JT2M70