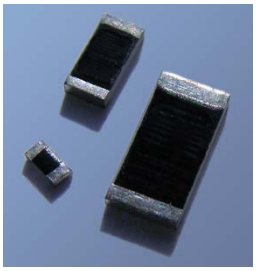
Features:

- Voltage ratings to 20,000 Volts
- Resistance values to 10 Gohms
- Ultra-high stability
- Very low noise
- Tolerances to 1%
- Tolerances 10% and wider are typically untrimmed
- TCR to 100 ppm/ºC

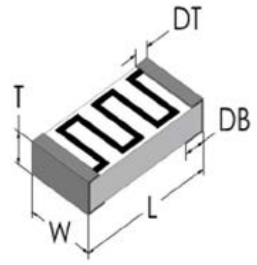


Electrical Specifications

Type / Code	Resistance Temperature Coefficient	Maximum Working Voltage	Ohmic Range (Ω) and Tolerance
			1%, 2%, 5%, 10%, 20%
UHV2010	100 ppm/ºC 200 ppm/ºC	3000V	100M - 158M
		4000V	162M - 357M
		6000V	365M - 10G
UHV2512	100 ppm/ºC 200 ppm/ºC	4000V	121M - 249M
		6000V	255M - 442M
		8000V	453M - 698M
		10000V	715M - 10G
UHV3512	100 ppm/ºC 200 ppm/ºC	4000V	100M - 196M
		6000V	200M - 324M
		8000V	332M - 523M
		10000V	536M - 732M
		12000V	750M - 976M
		14000V	1G - 10G
UHV4020	100 ppm/ºC 200 ppm/ºC	6000V	150M - 249M
		8000V	255M - 392M
		10000V	402M - 562M
		12000V	576M - 768M
		14000V	787M - 976M
		16000V	1G - 10G
UHV5020	100 ppm/ºC 200 ppm/ºC	6000V	100M - 158M
		8000V	162M - 249M
		10000V	255M - 357M
		12000V	365M - 487M
		14000V	499M - 634M
		16000V	649M - 976M
		20000V	1G - 10G

Due to the high resistance values offered, the power rating for a given size and resistance value should be calculated by V^2/R.
Because of the high voltage ratings, these resistors should be potted to ensure terminal isolation.

Mechanical Specifications



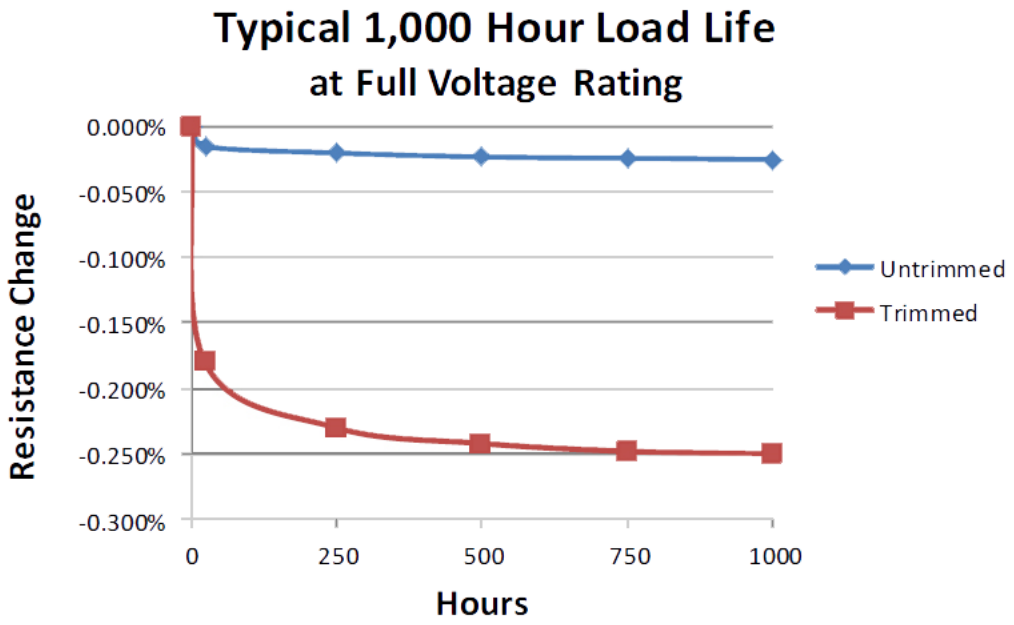
Type / Code	L Body Length	W Body Width	Thickness (Max.)	DT Top Termination	DB Bottom Termination	Unit
UHV2010	0.200 ± 0.010 5.08 ± 0.25	0.100 ± 0.005 2.54 ± 0.13	0.030 0.76	0.018 ± 0.010 0.46 ± 0.25	0.020 ± 0.010 0.51 ± 0.25	inches mm
UHV2512	0.250 ± 0.010 6.35 ± 0.25	0.125 ± 0.005 3.18 ± 0.13	0.030 0.76	0.020 ± 0.010 0.51 ± 0.25	0.024 ± 0.010 0.61 ± 0.25	inches mm
UHV3512	0.350 ± 0.010 8.89 ± 0.25	0.125 ± 0.005 3.18 ± 0.13	0.030 0.76	0.020 ± 0.010 0.51 ± 0.25	0.024 ± 0.010 0.61 ± 0.25	inches mm
UHV4020	0.400 ± 0.010 10.16 ± 0.25	0.200 ± 0.005 5.08 ± 0.13	0.030 0.76	0.025 ± 0.010 0.64 ± 0.25	0.030 ± 0.010 0.76 ± 0.25	inches mm
UHV5020	0.500 ± 0.010 12.70 ± 0.25	0.200 ± 0.005 5.08 ± 0.13	0.030 0.76	0.030 ± 0.010 0.76 ± 0.25	0.030 ± 0.010 0.76 ± 0.25	inches mm

Performance Characteristics

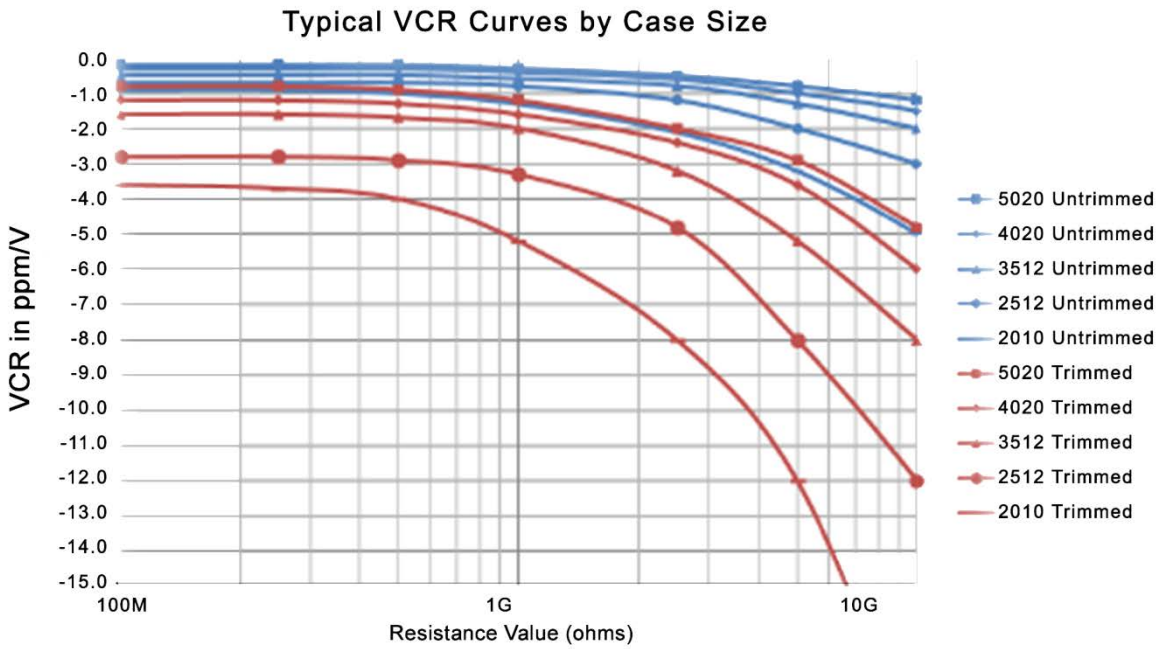
Test	Typical Performance
Short Time Overload	0.5%
Load Life	0.5%
Temperature Cycle	0.5%
Moisture Resistance	0.5%
Shock	0.25%
Vibration	0.25%
Dielectric Withstanding Voltage	0.25%
Resistance to Soldering Heat	0.25%

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

Load Life



VCR Curves



"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.

How to Order

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
U	**H**	**V**	**B**	**3**	**5**	**1**	**2**	**F**	**K**	**D**	**5**	**0**	**0**	**M**

Product Series	
UHVB	Solderable wraparound (matte tin Sn99.9 on nickel barrier) RoHS Compliant
UHVS	Solderable wraparound (Sn63Pb37 solder over nickel barrier) Not RoHS Compliant

Size
2010
2512
3512
4020
5020

Tolerance	
Code	Tol
F	1%
G	2%
J	5%
K	10%
M	20%

Packaging			
Code	Description	Size	Quantity
T	Tape and Reel Plastic Tape	2010	4000
		2512	2000
K	Tape and Reel Plastic Tape	All Sizes	1000
D	Tape and Reel Plastic Tape	All Sizes	500
C	Tape and Reel Plastic Tape	All Sizes	250

TCR	
Code	ppm
D	100
L	200

Resistance Value
Four characters with the multiplier used as the decimal holder.
90 Mohm = 90M0
250 Mohm = 250M
1 Gohm = 1G00