

0402 0603

HVI Series

0805 1206
2010 2512



Features:

High RCW Voltage

Thick Film Technology

Nickel Barrier Terminals

Resistance Values from 10Ω to 1GΩ



50 Schoolhouse Lane
Portsmouth, RI 02871
Tel (401) 683-9700
Fax (401) 683-5571
e-mail: ims@ims-resistors.com
<http://www.ims-resistors.com>

Thick Film Wraparound High Voltage Surface Mount Chip Resistors

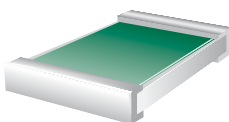
The **ims** HVI Series of thick film wraparound surface mount resistors are an ideal solution for applications requiring a reliable design solution at high voltages. Proprietary architecture ensures stable resistance into the kilo-volt range. RoHS compliant solderable terminals feature a nickel barrier layer for excellent solder leach resistance. Applications for HVI Series resistors include, but are not limited to, power supplies, power converters, defibrillators, pacemakers and power metering devices.

Features

- High rated continuous working voltage
- High stability thick film resistor element
- 96% Al₂O₃ substrate material
- Nickel barrier layer terminals provide excellent solder leach resistance
- Trimmed to EIA standard values
- Tolerances to ± 1%
- Passivated resistor element
- Available in bulk or on tape and reel



Terminal Style



Full Wraparound Terminals with 100% Matte Tin Finish over Nickel Barrier Layer



Specifications

Part	Max RCW Voltage*	Max Overload Voltage	Rated Power†
HVI-0402	100V	200V	62.5mW
HVI-0603	200V	400V	100mW
HVI-0805	400V	800V	125mW
HVI-1206	500V	1kV	250mW
HVI-2010	2kV	3kV	500mW
HVI-2512	3kV	4kV	1W

* Operating Voltage = $\sqrt{P \cdot R}$ or maximum operating voltage above, whichever is lower.

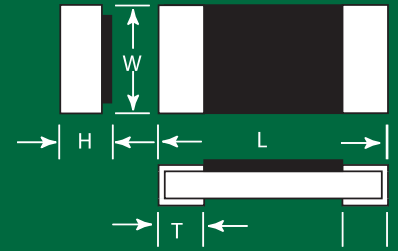
† Rated at 70°C Free Air Temperature

Resistance Ranges

PN	1%	5%	10%
HVI-0402	10Ω to 10MΩ	10Ω to 100MΩ	N/A
HVI-0603	10Ω to 10MΩ	10Ω to 100MΩ	N/A
HVI-0805	10Ω to 10MΩ	10Ω to 100MΩ	N/A
HVI-1206	10Ω to 10MΩ	10Ω to 100MΩ	N/A
HVI-2010	10Ω to 20MΩ	10Ω to 470MΩ	510MΩ to 1GΩ
HVI-2512	10Ω to 20MΩ	10Ω to 470MΩ	510MΩ to 1GΩ

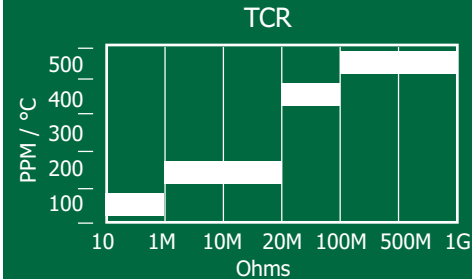
Dimensions (inches)

PN	LENGTH	WIDTH	HEIGHT	T
HVI-0402	0.039 ± .002	0.020 ± .002	0.015 MAX	0.008 ± .004
HVI-0603	0.063 ± .004	0.032 ± .004	0.015 MAX	0.012 ± .008
HVI-0805	0.080 ± .004	0.049 ± .004	0.025 MAX	0.016 ± .008
HVI-1206	0.122 ± .004	0.061 ± .004	0.025 MAX	0.020 ± .008
HVI-2010	0.201 ± .008	0.101 ± .009	0.026 MAX	0.020 ± .012
HVI-2512	0.252 ± .008	0.122 ± .006	0.026 MAX	0.028 ± .016



Characteristics

	1% Tolerance	5% Tolerance
Short Time Overload:	±(1% + 0.05Ω) Max.	±(2% + 0.05Ω) Max.
Solder Heat Resistance:	±(0.5% + 0.05Ω) Max.	±(1.0% + 0.05Ω) Max.
Temperature Cycle:	±(0.5% + 0.05Ω) Max.	±(1.0% + 0.05Ω) Max.
Load Life:	±(2.0% + 0.10Ω) Max.	±(3.0% + 0.10Ω) Max.
Operating Temperature:	-55°C to 155°C	
Solderability:	95% Min Coverage	
Terminal Strength:	±(1% + 0.05Ω) Max.	



Ordering Information

Example: 2kV, 2010, 40MΩ, 5% Resistor

HVI - 2010 - 4005 J		Tolerance	
		F= 1%	K= 10%
		J= 5%	
Form Factor		Resistance Value	
0402	1206	The first three digits are significant values. The fourth is the number of zeros following. The R indicates a decimal point for resistance values less than 100Ω.	
0603	2010		
0805	2512		

Additional High Voltage Chip Resistor Options (Including Alternate Terminal Metals, Additional Sizes and Values) Are Possible. Please Contact Factory!

Visit us on the web!
www.ims-resistors.com

ims International Manufacturing Services Inc.

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e-mail: ims@ims-resistors.com
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