

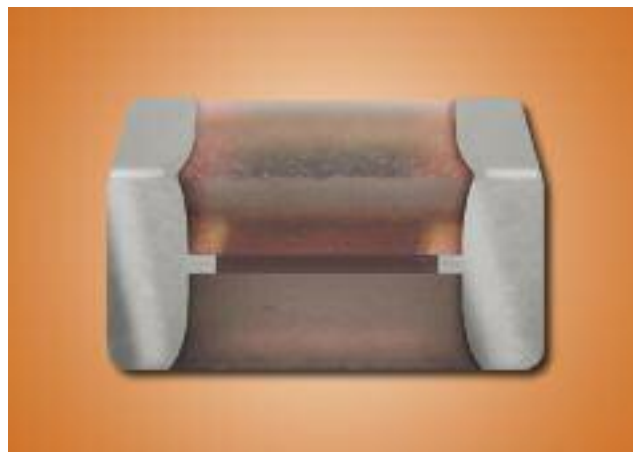
## ATC HVR Series Resistors

### Features:

- EIA 0402 Case Size
- Power Rating: 125 mW
- Operating Temperature: -40°C to +125°C
- 100% Laser Trimming for Tight Tolerances

ATC // AVX Thin Film Technologies is pleased to introduce the HVR Series next generation of surface mount High Value Resistors. This product was designed with our proprietary Glass Sandwich Flexiterm® Technology, (GSFT). The Flexiterm® is a surface mountable automotive qualified termination that adds an extra margin against damage due to flexure during installation.

The HVR Series has been designed with high quality selected materials that yield excellent performance. This product is ideal for use in applications requiring surface mountable small outline EIA resistors.



### Applications:

- Multi Chip Module (MCM)
- Bias Networks
- Test and Measurement Equipment
- Aerospace
- Medical
- Automotive

### Specifications

| Resistor                    | Detail                        |
|-----------------------------|-------------------------------|
| Outline                     | EIA 0402                      |
| Package                     | Glass wafer sandwich          |
| Maximum Voltage             | 1 KV                          |
| Resistance Value Range      | From 2.2 MΩ to 20 MΩ          |
| Termination                 | Flexiterm® (Ag/Epoxy), plated |
| Power Rating                | 125 mW                        |
| Operating Temperature Range | -40°C to +125°C               |
| Tolerances                  | 1%, 5%                        |



AMERICAN TECHNICAL CERAMICS

ATC North America  
sales@atceramics.com

ATC Europe  
saleseur@atceramics.com

ATC Asia  
sales@atceramics-asia.com

THE ENGINEERS' CHOICE®  
ISO 9001 REGISTERED

www.atceramics.com

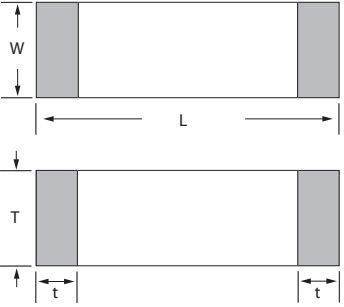
ATC # 001-1110  
Rev A, 5/12

# ATC HVR SERIES RESISTIVE PRODUCTS

## Resistor Material Properties

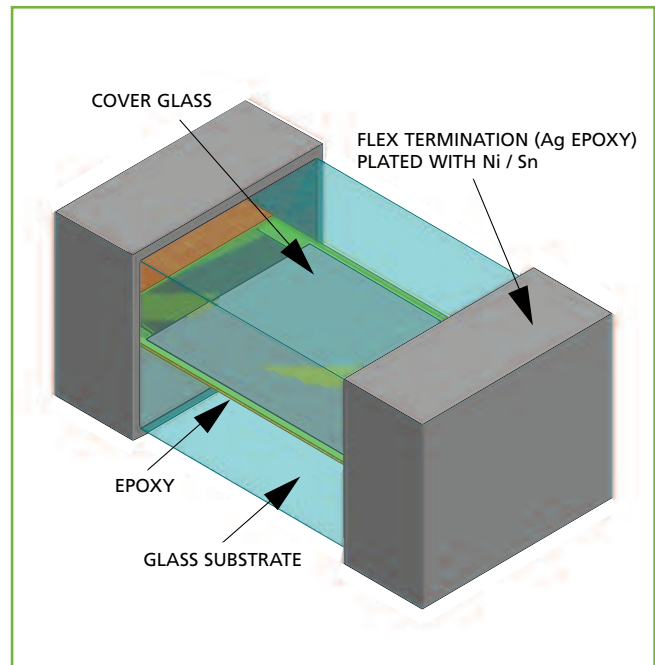
| Resistor Material (SiCr): Properties  |            |
|---------------------------------------|------------|
| Sheet Resistance<br>(Ohms per Square) | TCR ppm/°C |
| 300 to 1300                           | ±50, ±100  |

## Mechanical Dimensions



| Size (EIA) | Length (L)                 | Width (W)                  | Thickness (T)              | Terminal (t)               |
|------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 0402       | .039 ±.004<br>(1.00 ±0.10) | .020 ±.004<br>(0.50 ±0.10) | .020 ±.004<br>(0.50 ±0.10) | .010 ±.006<br>(0.25 ±0.15) |

inches (mm)



## ATC Part Number Code

|                      | ATC | HVR | L | 220 | 4 | F | T | D | T |                                                                           |
|----------------------|-----|-----|---|-----|---|---|---|---|---|---------------------------------------------------------------------------|
| Series               |     |     |   |     |   |   |   |   |   | Packaging: T = Tape & Reel                                                |
| Case Size            |     |     |   |     |   |   |   |   |   | Temperature Coefficient of Resistance (TCR - ppm/°C)<br>D = ±50, E = ±100 |
| Resistance Value (Ω) |     |     |   |     |   |   |   |   |   | Termination: T = NiSn Plated                                              |
| 3 significant digits |     |     |   |     |   |   |   |   |   | Tolerance<br>F = 1%, J = 5%                                               |
| R = decimal point    |     |     |   |     |   |   |   |   |   |                                                                           |
| Multiplier           |     |     |   |     |   |   |   |   |   |                                                                           |

The above part number refers to a HVR Series (case size L), 2.2 M-Ohms, F tolerance (1%), NiSn Plated, with a TCR of ±50 ppm/°C, with Tape and Reel Packaging.

ATC accepts orders for our parts using designations **with** or **without** the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics.

For additional information and catalogs contact your ATC representative or call direct at +1-631-622-4700.

Consult factory for additional performance data.

Sales of ATC products are subject to the terms and conditions contained in American Technical Ceramics Corp. Terms and Conditions of Sale (ATC document #001-992 Rev. A 10/03). Copies of these terms and conditions will be provided upon request. They may also be viewed on ATC's website at [www.atceramics.com/productfinder/default.asp](http://www.atceramics.com/productfinder/default.asp). Click on the link for Terms and Conditions of Sale. ATC has made every effort to have this information as accurate as possible. However, no responsibility is assumed by ATC for its use, nor for any infringements of rights of third parties which may result from its use. ATC reserves the right to revise the content or modify its product line without prior notice.

© 2012 American Technical Ceramics Corp. All Rights Reserved.

ATC # 001-1110; Rev A, 5/12



AMERICAN TECHNICAL CERAMICS

ATC North America  
sales@atceramics.com

ATC Europe

saleseur@atceramics.com

ATC Asia

sales@atceramics-asia.com



[www.atceramics.com](http://www.atceramics.com)