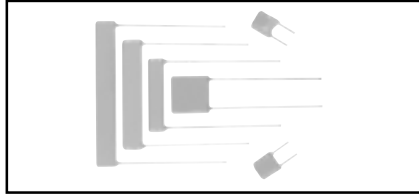


High Voltage Resistors



FEATURES

- Non-inductive design.
- Matched sets available.
- Ratio dividers available.
- Special testing available.
- Low T.C.: $\pm 200\text{PPM}/^\circ\text{C}$ standard, $\pm 100\text{PPM}/^\circ\text{C}$ and $\pm 50\text{PPM}/^\circ\text{C}$ available.
- Tolerance: $\pm 10\%$, $\pm 5\%$, $\pm 2\%$, $\pm 1\%$ Standard tolerance and/or T.C. matching available upon request.

MECHANICAL SPECIFICATIONS

Terminal Strength: 5 pound pull test.

Solderability: Continuous satisfactory coverage when tested in accordance with MIL-R-10509.

MATERIAL SPECIFICATIONS

Element: High temperature fired cermet film.

Core: High purity 96% alumina.

Coating: Conformal coat epoxy.

Termination: Standard lead material is solder coated copper. Solderable and weldable per MIL-STD-1276 Type C.

TEMPERATURE COEFFICIENT CODE

| Code | Temperature Coefficient | Range |
|------|-------------------------|-------------------|
| H | $\pm 50\text{PPM}$ | - 55°C to + 125°C |
| K | $\pm 100\text{PPM}$ | - 55°C to + 125°C |
| M | $\pm 200\text{PPM}$ | - 55°C to + 125°C |

STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | WATTAGE RATING | | MAXIMUM VOLTAGE (kV) | RESISTANCE RANGE (Ohms)* | |
|---------|----------------|-----------|----------------------|--------------------------|---------------------|
| | @ + 70°C | @ + 125°C | | $\pm 220\text{PPM}$ | $\pm 100\text{PPM}$ |
| FHV-025 | .25 | .125 | .75 | 10K - 100M | 10K - 100M |
| FHV-050 | .50 | .25 | 1.5 | 10K - 500M | 10K - 100M |
| FHV-075 | .25 | .125 | 3.75 | 100 - 1G | 500 - 500M |
| FHV-100 | 1.0 | .50 | 7.5 | 100 - 2G | 500 - 1G |
| FHV-150 | 1.5 | .75 | 11.25 | 10K - 2G | 1M - 1G |
| FHV-160 | 1.0 | .50 | 3.5 | 100 - 2G | 500 - 1G |
| FHV-200 | 2.0 | 1.0 | 15.0 | 200 - 8G | 500M - 1G |
| FHV-400 | 2.0 | 1.0 | 7.5 | 20K - 2G | 1M - 1G |
| FHV-500 | 4.0 | 2.0 | 15.0 | 30K - 10G | 1M - 1G |

*All resistance values are calibrated at 100 VDC. Calibration at other voltages upon request.

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

Figure 1

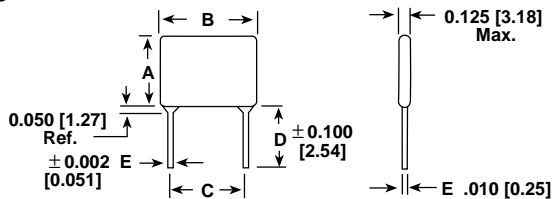
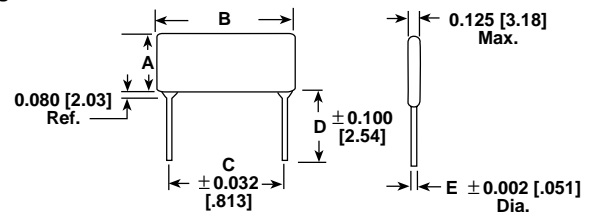


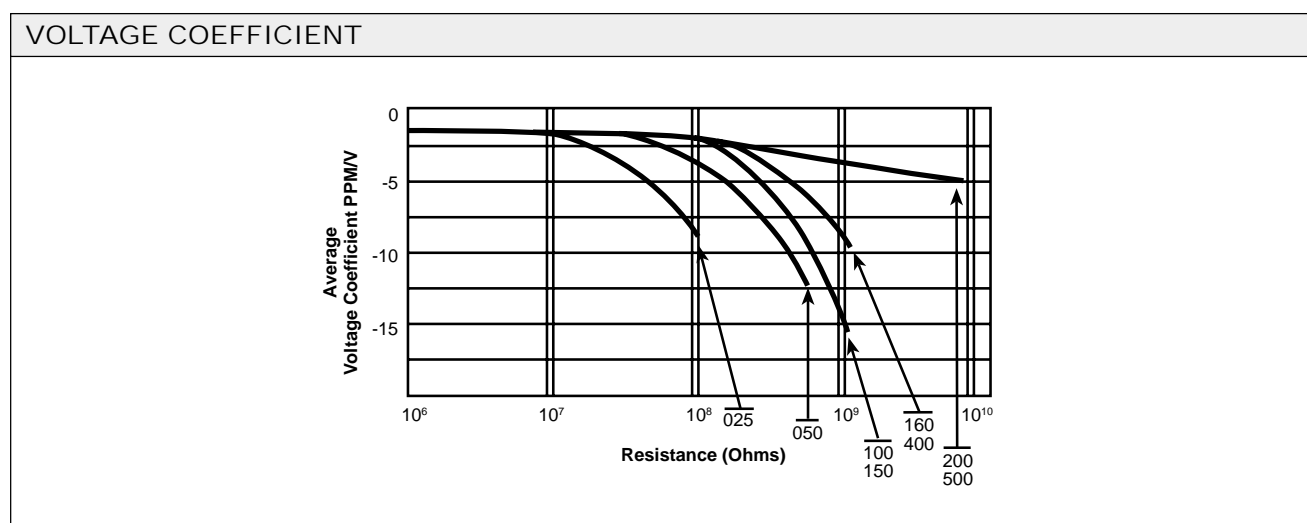
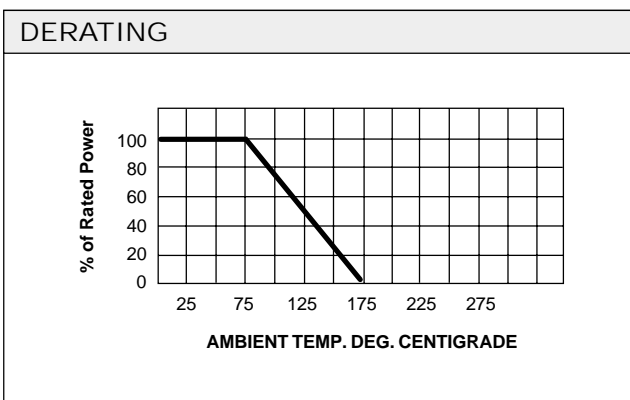
Figure 2



| MODEL - SIZE | A (Max.) | B (Max.) | C | D | E | FIGURE |
|--------------|--------------|--------------|--------------|--------------|-------------|--------|
| FHV-025 | .300 [7.62] | .300 [7.62] | .200 [5.08] | .250 [6.35] | .018 [.457] | 1 |
| FHV-050 | .380 [9.65] | .380 [9.65] | .200 [5.08] | .360 [9.14] | .020 [.508] | 1 |
| FHV-075 | .210 [5.33] | .570 [14.48] | .400 [10.16] | 1.50 [38.10] | .025 [.635] | 2 |
| FHV-100 | .280 [7.11] | 1.07 [21.18] | .900 [22.86] | 1.50 [38.10] | .032 [.813] | 2 |
| FHV-150 | .330 [8.38] | 1.57 [39.88] | 1.40 [35.56] | 1.50 [38.10] | .032 [.813] | 2 |
| FHV-160 | .550 [13.97] | .550 [13.97] | .400 [10.16] | 1.50 [38.10] | .032 [.813] | 2 |
| FHV-200 | .330 [8.38] | 2.04 [51.82] | 1.90 [48.26] | 1.50 [38.10] | .032 [.813] | 2 |
| FHV-400 | .550 [13.97] | 1.05 [26.67] | .900 [22.86] | 1.50 [38.10] | .032 [.813] | 2 |
| FHV-500 | .550 [13.97] | 2.07 [52.58] | 1.90 [48.26] | 1.50 [38.10] | .032 [.813] | 2 |



| ENVIRONMENTAL PERFORMANCE | |
|---------------------------------|---|
| TEST | MAXIMUM ΔR (Typical Test Lots) |
| Short Time Overload | $< \pm 0.2\%$ |
| Moisture Resistance | $< \pm 0.5\%$ |
| Shock | $< \pm 0.2\%$ |
| Vibration | $< \pm 0.2\%$ |
| Temperature Cycling | $< \pm 0.5\%$ |
| Load Life | $< \pm 1.0\%$ |
| Dielectric Withstanding Voltage | $< \pm 0.15\%$ |
| Resistance to Soldering Heat | $< \pm 0.1\%$ |



HOW TO ORDER

| FHV MODEL | 025 SIZE | 1001 VALUE | F TOLERANCE | M TEMPERATURE COEFFICIENT |
|--------------|-------------|---------------|---|---|
| | | | K = $\pm 10\%$ J = $\pm 5\%$ G = $\pm 2\%$ F = $\pm 1\%$ | H = $\pm 50\text{PPM}/^\circ\text{C}$ K = $\pm 100\text{PPM}/^\circ\text{C}$ M = $\pm 200\text{PPM}/^\circ\text{C}$ |

NOTE: 1% tolerance not available above 1G.