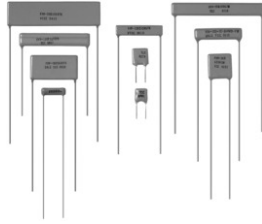


Thick Film Resistors, Through-Hole, High Voltage



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 tin plated copper

FEATURES

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



TEMPERATURE COEFFICIENT CODE

CODE	TEMPERATURE COEFFICIENT	RANGE
K	± 100 ppm	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$
N	± 200 ppm	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	WATTAGE RATING		MAXIMUM VOLTAGE (kV)	RESISTANCE (Ω) ⁽¹⁾	
	at + 70 $^{\circ}\text{C}$	at + 125 $^{\circ}\text{C}$		± 200 ppm	± 100 ppm
FHV025	0.25	0.125	0.75	10K to 100M	10K to 100M
FHV050	0.50	0.25	1.5	10K to 500M	10K to 100M
FHV075	0.25	0.125	3.75	100 to 1G	500 to 500M
FHV100	1.0	0.50	7.5	100 to 2G	500 to 1G
FHV150	1.5	0.75	11.25	10K to 2G	1M to 1G
FHV160	1.0	0.50	3.5	100 to 2G	500 to 1G
FHV200	2.0	1.0	15.0	200 to 8G	500M to 1G
FHV400	2.0	1.0	7.5	20K to 2G	1M to 1G
FHV500	4.0	2.0	15.0	30K to 10G	1M to 1G

Note

⁽¹⁾ All resistance values are calibrated at 100 V_{DC}. Calibration at other voltages upon request.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: FHV02510K0FNEB (preferred part number format)

F **H** **V** **0** **2** **5** **1** **0** **K** **0** **F** **N** **E** **B**

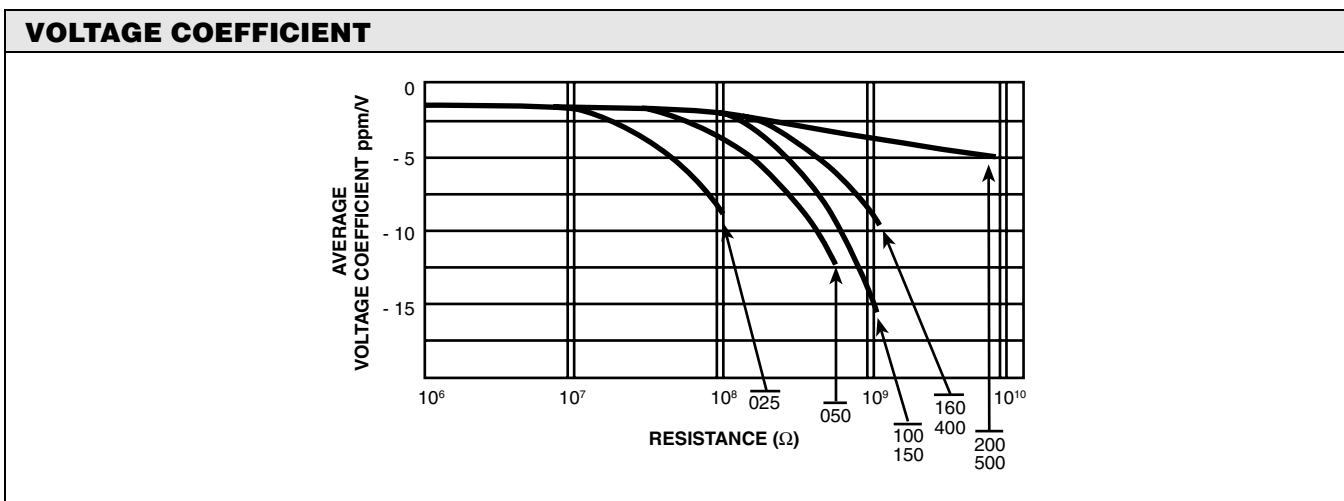
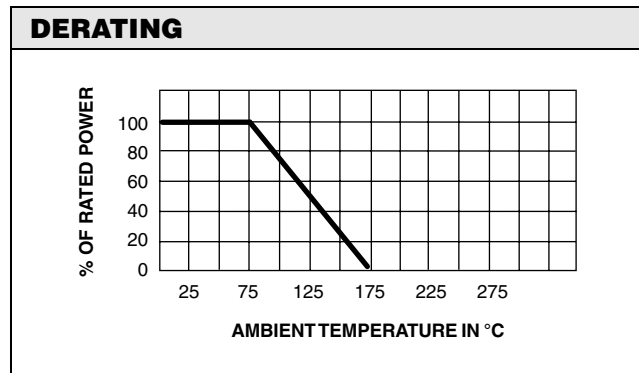
GLOBAL MODEL	SIZE	RESISTANCE VALUE	TOLERANCE	TCR	TERMINAL FINISH	PACKAGING
FHV	025 050 075 100 150 160 200 400 500	R = Decimal K = Thousand M = Million G = Billion 400R = 400 Ω 10M0 = 10 M Ω 10G0 = 10 G Ω	F = $\pm 1.0\%$ G = $\pm 2.0\%$ J = $\pm 5.0\%$ K = $\pm 10.0\%$	K = 100 ppm N = 200 ppm	E = Sn100 R = Sn60/Pb40	B = Bulk S = Strip

Historical Part Numbering: FHV0251002FMe3 (will continue to be accepted)

FHV	025	1002	F	M	e3
HISTORICAL MODEL	SIZE	RESISTANCE VALUE	TOLERANCE	TCR	TERMINAL FINISH

DIMENSIONS in inches [millimeters]						
Figure 1 			Figure 2 			
MODEL - SIZE	A (max.)	B (max.)	C	D	E	FIGURE
FHV025	0.300 [7.62]	0.300 [7.62]	0.200 [5.08]	0.250 [6.35]	0.018 [0.457]	1
FHV050	0.380 [9.65]	0.380 [9.65]	0.200 [5.08]	0.360 [9.14]	0.020 [0.508]	1
FHV075	0.210 [5.33]	0.570 [14.48]	0.400 [10.16]	1.50 [38.10]	0.025 [0.635]	2
FHV100	0.280 [7.11]	1.07 [21.18]	0.900 [22.86]	1.50 [38.10]	0.032 [0.813]	2
FHV150	0.330 [8.38]	1.57 [39.88]	1.40 [35.56]	1.50 [38.10]	0.032 [0.813]	2
FHV160	0.550 [13.97]	0.550 [13.97]	0.400 [10.16]	1.50 [38.10]	0.032 [0.813]	2
FHV200	0.330 [8.38]	2.04 [51.82]	1.90 [48.26]	1.50 [38.10]	0.032 [0.813]	2
FHV400	0.550 [13.97]	1.05 [26.67]	0.900 [22.86]	1.50 [38.10]	0.032 [0.813]	2
FHV500	0.550 [13.97]	2.07 [52.58]	1.90 [48.26]	1.50 [38.10]	0.032 [0.813]	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	$< \pm 0.1\%$





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