

Ohmite's High Voltage Flip Chip Series incorporates high accuracy screen printing technology to achieve high voltage capability in a stable flip chip SMD chip resistor package. The HVF Series offers unmatched performance in comparison to standard chip resistors. Its unique design provides lower voltage and temperature coefficients, less noise, tighter tolerances, better stability, higher resistance values, and higher voltage ratings. HVF is available in convenient 1206 and 2512 footprints.

# HVF Series

## High Voltage Flip Chip Film



### FEATURES

- High voltage up to 3,000 volts
- Industry standard sizes
- Working temperature range -55°C to 200°C
- Designed for automatic insertion

### SPECIFICATIONS

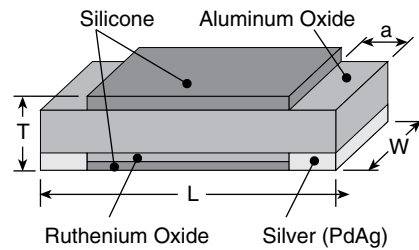
**Resistance Range:**  
1K $\Omega$  to 100G $\Omega$

**Resistance Tolerance:**  $\pm 1\%$  std.;  
5% for HVF1206 100M $\Omega$ -10G $\Omega$   
more; 10% for 10G $\Omega$ +

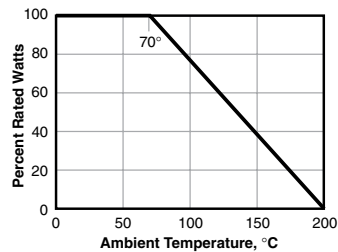
**Temperature Coefficient:**  
 $\pm 100$ ppm std.

**Coating:** Silicone

**Solder Pad Material:** Silver (PdAg)

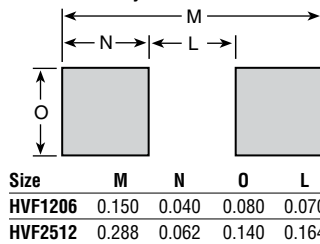


### DERATING



### LAND PATTERN (in.)

Land pattern dimensions are for reference only



### VOLTAGE COEFFICIENT OF RESISTANCE

Series	Resistance Range	VCR (-ppm/V)*
1206	1K ..10M $\Omega$	<3.20
	10M ..100M $\Omega$	<15.00
	100M ..1G $\Omega$	<29.00
	1G $\Omega$ .. 5G $\Omega$	<40.00
2512	1K ..30M $\Omega$	<0.80
	30M ..300M $\Omega$	<4.00
	300M ..3G $\Omega$	<7.00
	3G $\Omega$ .. 5G $\Omega$	<10.00

\*Typical values. Voltage coefficient of resistance strongly depends on the resistance value. Contact Ohmite for details.

Series	Resistance Range	Tol.	Power Rating (mW)	Voltage Rating*	Dimensions (in. $\pm 0.008$ )	Std. Qty./Reel**
HVF1206	1K-100M	1% std.	300	1,500	0.128 0.063 0.018 0.028	1000
	100M-10G	5%				
	10G-100G	10%				
HVF2512	1K-100G	1% std.	1000	3,000	0.252 0.126 0.026 0.032	1000

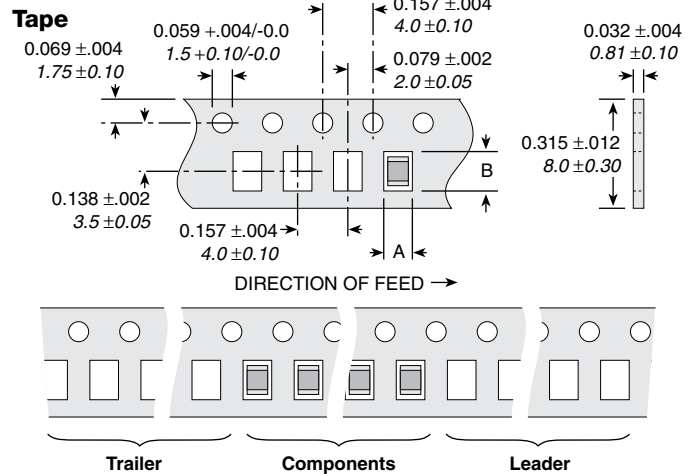
\*Use Ohm's Law ( $V = \sqrt{P \cdot R}$ ) to calculate maximum working voltage.  
\*\*Maximum available quantity per reel is 3,500 for 1206 size and 2,000 for 2512 size; call 1-866-9-OHMITE for details.

### PERFORMANCE DATA

Insulation Resistance	>10,000 M $\Omega$	500 Volt 25 °C 75% relative humidity
Dielectric Strength	>1,000 Volt	25 °C 75% relative humidity
Thermal Shock	$\Delta R/R < 0.1\%$ typ., 0.50% max.	MIL Std. 202, method 107 Cond. C (IEC 68 -2 -14)
Overload	$\Delta R/R < 0.1\%$ typ., 0.50% max.	1.5 x Pnom, 5 sec (do not exceed max. voltage)
Moisture Resistance	$\Delta R/R < 0.1\%$ typ., 0.50% max.	MIL Std. 202, method 106 (IEC 68 -2 -3)
Load Life	$\Delta R/R < 0.1\%$ typ., 0.50% max.	1000 hours at rated power (IEC 115 -1)

### TAPE AND REEL SPECIFICATIONS

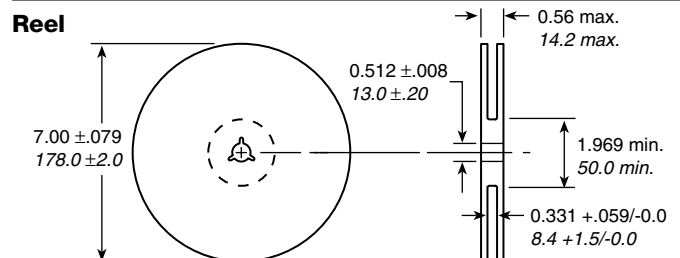
Per EIA Std. RS-481



**Trailer**  
230mm min.-560mm max. May consist of carrier and/or cover tape followed by a minimum of 160mm of carrier with sealed cover tape

**Components**

**Leader**  
Minimum of 40 empty component pockets sealed with cover tape



### ORDERING INFORMATION

RoHS Compliant

Taping Code  
blank = bulk package  
T = tape & reel

**HVF1206T1004JET**

High Voltage Flip Chip Series

Case Size  
1206  
2512

TCR  
T = 100 ppm

Ohms  
First 3 digits are significant; last digit specifies number of zeros to follow. Example: 1006 = 100M $\Omega$

Tolerance  
F = 1%  
G = 2%  
J = 5%

Check product availability at [www.ohmite.com](http://www.ohmite.com)

### STANDARD PART NUMBERS FOR HVF SERIES

Ohms	HVF1206	HVF2512
25K	HVF1206T2502FE	HVF2512T2502FE
50K	HVF1206T5002FE	HVF2512T5002FE
75K	HVF1206T7502FE	HVF2512T7502FE
100K	HVF1206T1003FE	HVF2512T1003FE
250K	HVF1206T2503FE	HVF2512T2503FE
500K	HVF1206T5003FE	HVF2512T5003FE
1000K	HVF1206T1004FE	HVF2512T1004FE
1500K	HVF1206T1504FE	HVF2512T1504FE
2000K	HVF1206T2004FE	HVF2512T2004FE
2500K	HVF1206T2504FE	HVF2512T2504FE
5000K	HVF1206T5004FE	HVF2512T5004FE
7500K	HVF1206T7504FE	HVF2512T7504FE
1G	HVF1206T1007JE	HVF2512T1007FE
		HVF2512T5007FE
10G	HVF1206T1008JE	