

HVPS

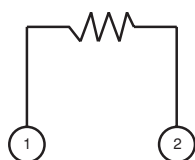
Vishay Thin Film

**High Value Precision SIP****FEATURES**

- High nominal ultra precision resistor (Value range 50K-10M).
- Highly accurate resistance tolerance to $\pm 0.01\%$
- Conformal coating flame resistant (UL94V-) Rating)
- Ultra low TCR ± 5 ppm/ $^{\circ}\text{C}$

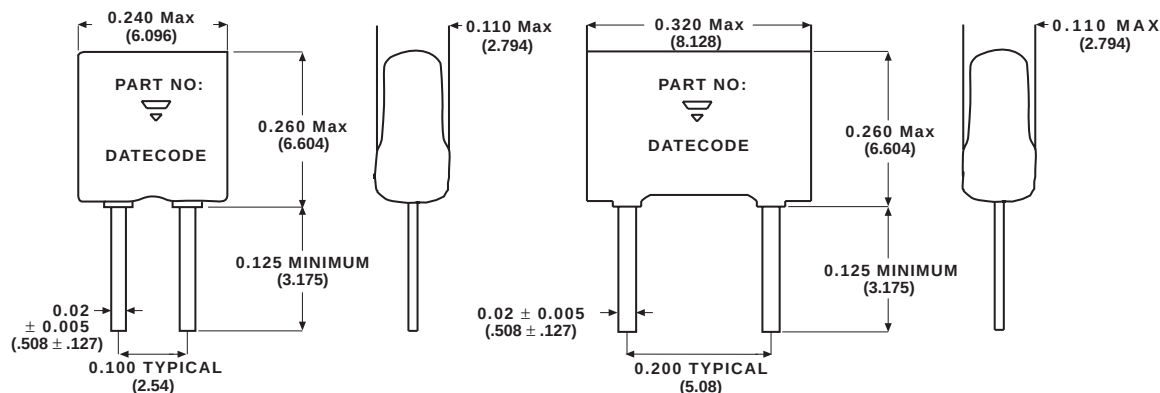
APPLICATIONS

- Precise Instrumentation (Medical, Test etc).
- Precision Amplifiers

SCHEMATIC**STANDARD ELECTRICAL SPECIFICATIONS**

TEST	SPECIFICATIONS	CONDITIONS
MATERIAL	TAMELOX	
Resistance Range	HVPS1 50K to 5M Ohms HVPS2 100K to 10M Ohms	
TCR	5, 10, 15, 25 ppm/ $^{\circ}\text{C}$	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$
Tolerance	0.01%, 0.02%, 0.05% 0.10%, 0.50%, 1.0%	+ 25 $^{\circ}\text{C}$
Power Rating	HVPS1 0.125 W HLPS2 0.250 W	Max @ + 70 $^{\circ}\text{C}$ Max @ + 70 $^{\circ}\text{C}$
Stability	500 ppm	2000 hours @ +70 $^{\circ}\text{C}$
Voltage Coefficient	< 1.0 ppm/Volt	
Working Voltage	HVPS1 250 Volts HLPS 2 300 Volts	
Operating Temperature Range	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$	
Noise	< - 30 db	
Thermal EMF	< 0.1 micro volt/ $^{\circ}\text{C}$	
Shelf Life Stability	< 100 ppm	1 Year @ + 25 $^{\circ}\text{C}$

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**DIMENSIONS AND IMPRINTING** in inches (millimeters)**STANDARD ELECTRICAL SPECIFICATIONS**

Resistive Elements	TAMELOX(Passivated Nichrome)
Substrate Material	99.6% Alumina
Body	Epoxy
Terminals	Copper with Nickel barrier
Plating	SN 60
Marking Resistance to Solvents	Per MIL-PRF-83401

How to Order

Series	TCR $\pm$ (ppm/ $^{\circ}$ C)	Resistance Value	Tolerance $\pm$ (%)
HVPS1 (100 mil Pin Spacing)	E = 25 D = 15 Y = 10 Z = 5	4 digits. The first 3 digits are significant figures and the last digit specifies the number of zeros to follow	F = 1.0% D = 0.5% B = 0.1% A = 0.05% P = 0.02% L = 0.01%
HVPS2 (200 mil Pin Spacing)		HVPS1 = 50K to 5M ohms HVPS2 = 100K to 10M ohms e.g. 100K = 1003	

EXAMPLE: HVPS1E5004B Is a high value precision single-in-line discrete resistor with 100 mil spacing, 25ppm/ $^{\circ}$ C TCR, 5m Ω resistance value and a tolerance of $\pm$ 0.1%