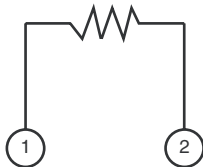


High Value Precision SIP


SCHEMATIC

FEATURES

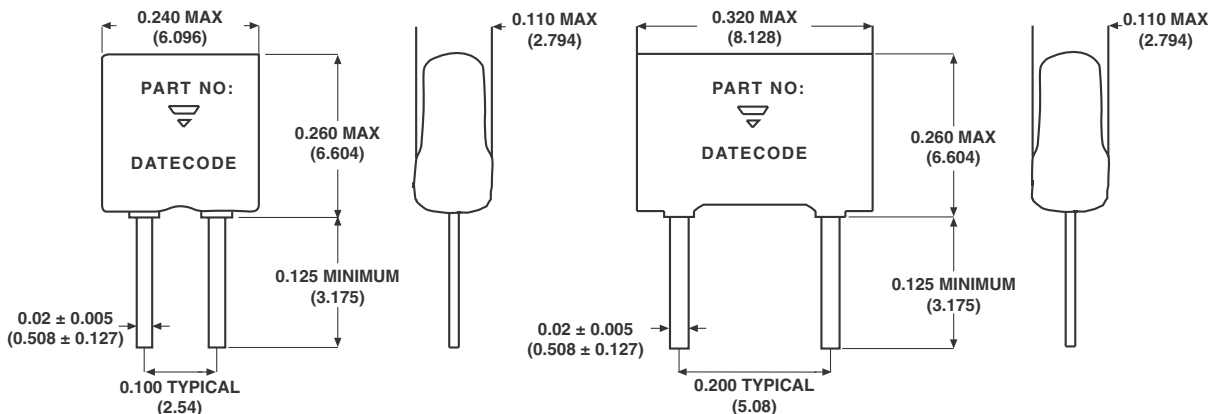
- Lead (Pb)-free available
- High nominal ultra precision resistors (value range 50K - 10M)
- Highly accurate resistance tolerance to $\pm 0.01\%$
- Conformal coating flame resistant (UL94V-) Rating
- Ultra low TCR ± 5 ppm/ $^{\circ}\text{C}$


RoHS*
COMPLIANT

APPLICATIONS

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

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
MATERIAL	TAMELOX	
Resistance Range	HVPS 1 50 k Ω to 5 M Ω HVPS 2 100 k Ω to 10 M Ω	
TCR	5, 10, 15, 25 ppm/ $^{\circ}\text{C}$	- 55 to + 125 $^{\circ}\text{C}$
Tolerance	0.01 %, 0.02 %, 0.05 % 0.10 %, 0.50 %, 1.0 %	Max at + 70 $^{\circ}\text{C}$ Max at + 70 $^{\circ}\text{C}$
Stability	500 ppm	2000 hours at + 70 $^{\circ}\text{C}$
Voltage Coefficient	< 1.0 ppm/Volt	
Working Voltage/Power Rating	HVPS 1 250 Volts/125 mW HVPS 2 300 Volts/250 mW	
Operating Temperature Range	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$	
Noise	< - 30 dB	
Thermal EMF	< 0.1 $\mu\text{V}/^{\circ}\text{C}$	
Shelf Life Stability	< 100 ppm	1 year at + 25 $^{\circ}\text{C}$

DIMENSIONS AND INPRINTING in inches [millimeters]


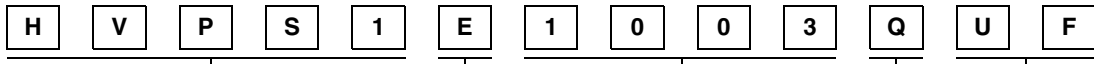
* Pb containing terminations are not RoHS compliant, exemptions may apply



MECHANICAL SPECIFICATIONS	
Resistive Element	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
Lead (Pb)-free Option	96.5 % Sn, 3.0 % Ag, 0.5 % Cu
Lead (Pb)-free Finish	Hot Solder Dip

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: HVPS1E1003QUF (preferred part number format)

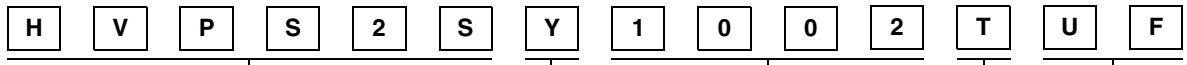


GLOBAL MODEL	TCR	RESISTANCE	TOLERANCE	PACKAGING
HVPS1 HVPS2 (Tin Lead)	E = 25 ppm/°C D = 15 ppm/°C Y = 10 ppm/°C Z = 5 ppm/°C	First 3 digits are significant figures. Last digit specifies the number of zeroes to follow. Example: 1001 = 1K 1002 = 10K 1003 = 10M	*A = 0.05 % B = 0.1 % D = 0.5 % F = 1.0 % Q = 0.02 % T = 0.01 % * Tolerance available on 1 kΩ and up only R1 is reference resistor	UF = TUBED

Historical Part Number example: HVPS1 25 ppm 100K 0.02 % UF (will continue to be accepted)

HVPS1	25 ppm	100K	0.02 %	UF
HISTORICAL MODEL	TCR	RESISTANCE	TOLERANCE	PACKAGING

New Global Part Numbering: HVPS2SY1002TUF (preferred part number format)



GLOBAL MODEL	TCR	RESISTANCE	TOLERANCE	PACKAGING
HVPS1S HVPS2S (Lead (Pb)-free) (e1)	E = 25 ppm/°C D = 15 ppm/°C Y = 10 ppm/°C Z = 5 ppm/°C	First 3 digits are significant figures. Last digit specifies the number of zeroes to follow. Example: 1001 = 1K 1002 = 10K 1003 = 10M	*A = 0.05 % B = 0.1 % D = 0.5 % F = 1.0 % Q = 0.02 % T = 0.01 % * Tolerance available on 1 kΩ and up only R1 is reference resistor	UF = TUBED

Historical Part Number example: HVPS2S 10 ppm 10K 0.01 % UF e1 (will continue to be accepted)

HVPS2S	10 ppm	10K	0.01 %	UF e1
HISTORICAL MODEL	TCR	RESISTANCE	TOLERANCE	PACKAGING

THROUGH HOLE



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