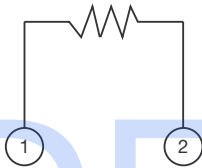


## High Value Precision SIP



### SCHEMATIC



### FEATURES

- High nominal precision resistors (value range 50K to 10M)
- Highly accurate resistance tolerance (up to  $\pm 0.01\%$ )
- Conformal coating flame resistant (UL 94 V-) rating
- Ultra low TCR ( $\pm 5$  ppm/ $^{\circ}$ C)
- High voltage
- Flame resistant (UL 94 V-0 rating)
- High voltage rating to 300 V
- Compliant to RoHS directive 2002/95/EC


**RoHS\***  
COMPLIANT

### APPLICATIONS

- Precise instrumentation (medical, test etc.)
- Precision amplifiers

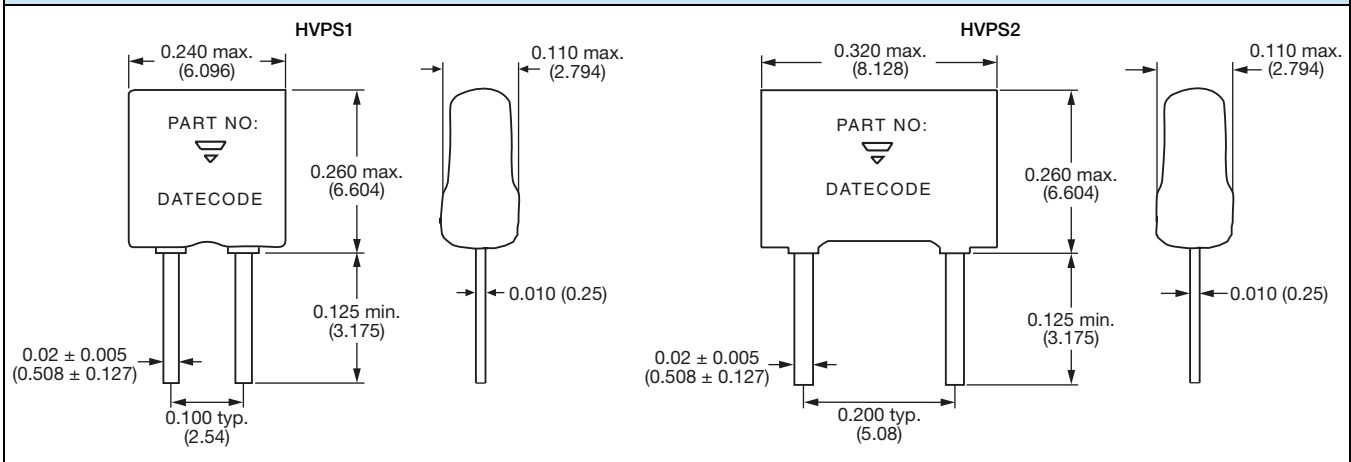
PDF Support

### STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	2	-
Resistance Range	50 000 $\Omega$ to 5000 k $\Omega$ (HVPS1) 100 000 $\Omega$ to 10 000 k $\Omega$ (HVPS2)	-
TCR: Absolute	5 ppm/ $^{\circ}$ C to 25 ppm/ $^{\circ}$ C	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C
TCR: Tracking	-	-
Tolerance: Absolute	$\pm 0.01\%$ to $\pm 1.0\%$	Maximum at + 70 $^{\circ}$ C
Tolerance: Ratio	-	-
Power Rating: Resistor	125 mW (HVPS1) 250 mW (HVPS2)	-
Power Rating: Package	-	-
Stability: Absolute	$\Delta R \pm 0.05\%$	2000 h at + 70 $^{\circ}$ C
Stability: Ratio	-	-
Voltage Coefficient	< 1.0 ppm/V	-
Working Voltage	250 V (HVPS1) 300 V (HVPS2)	-
Operating Temperature Range	- 55 $^{\circ}$ C to + 125 $^{\circ}$ C	-
Storage Temperature Range	-	-
Noise	< - 30 dB	-
Thermal EMF	< 0.1 $\mu$ V/ $^{\circ}$ C	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01\%$	1 year at + 25 $^{\circ}$ C
Shelf Life Stability: Ratio	-	-

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

## DIMENSIONS AND IMPRINTING in inches and millimeters

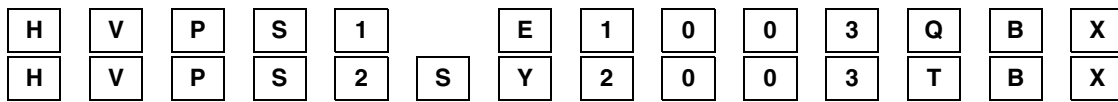


## MECHANICAL SPECIFICATIONS

Resistive Element	Passivated nichrome
Substrate Material	Alumina
Body	Epoxy coated
Terminals	Copper alloy
Tin/Lead Option	Sn60 - Sn63
Lead (Pb)-free Option	Sn96.5, Ag3.0, Cu0.5
Tin/Lead and Lead (Pb)-free Finish	Hot solder dip

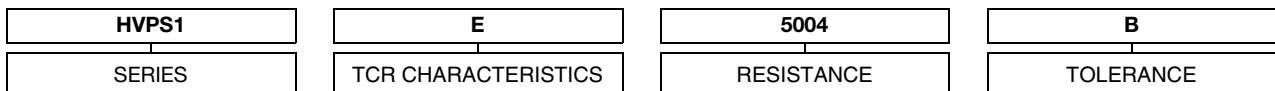
## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: HVPS1E1003QBX



GLOBAL MODEL (3 or 4 digits)	TCR	RESISTANCE	TOLERANCE	PACKAGING
<b>HVPS1</b> <b>HVPS2</b> (Tin lead)  <b>HVPS1S</b> <b>HVPS2S</b> (Lead (Pb)-free) (e1)	<b>E</b> = 25 ppm/°C <b>D</b> = 15 ppm/°C <b>Y</b> = 10 ppm/°C <b>Z</b> = 5 ppm/°C	First 3 digits are significant figures. Last digit specifies the number of zeroes to follow. e.g.: 1001 = 1K 1002 = 10K 1005 = 10M	<b>A</b> = 0.05 % <b>B</b> = 0.1 % <b>D</b> = 0.5 % <b>F</b> = 1.0 % <b>Q</b> = 0.02 % <b>T</b> = 0.01 %	<b>BX</b> = Conductive foam box

Historical Part Number example: HVPS1E5004B (for reference purposes only)





## Disclaimer

All product specifications and data are subject to change without notice.

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