

High Value Precision SIP

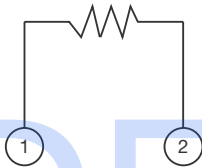


FEATURES

- 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 (± 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

SCHEMATIC



APPLICATIONS

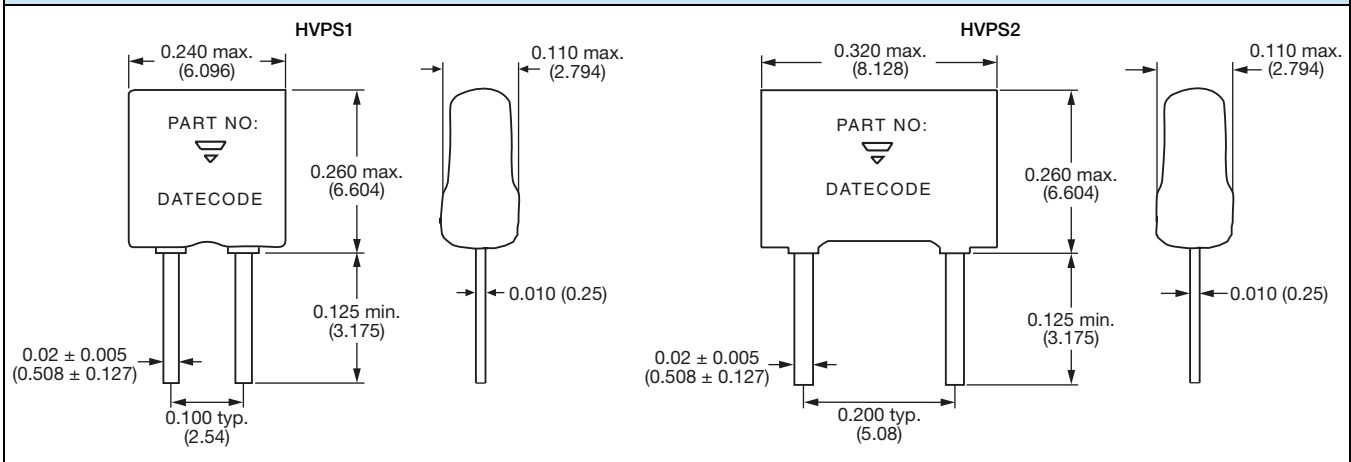
- Precise instrumentation (medical, test etc.)
- Precision amplifiers

PDF Support

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	2	-
Resistance Range	50 000 Ω to 5000 k Ω (HVPS1) 100 000 Ω to 10 000 k Ω (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 μ 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

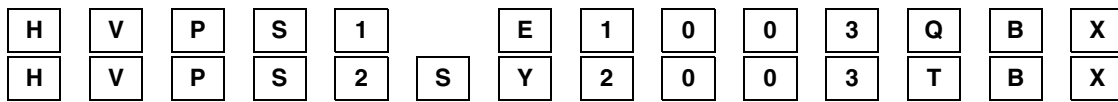


MECHANICAL SPECIFICATIONS

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

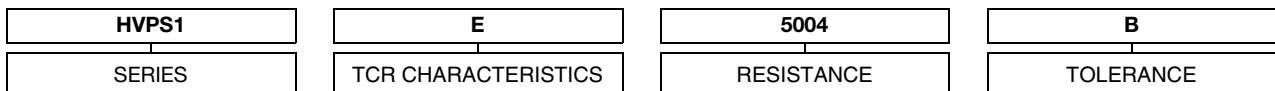
GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: HVPS1E1003QBX



GLOBAL MODEL (3 or 4 digits)	TCR	RESISTANCE	TOLERANCE	PACKAGING
HVPS1 HVPS2 (Tin lead) 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. e.g.: 1001 = 1K 1002 = 10K 1005 = 10M	A = 0.05 % B = 0.1 % D = 0.5 % F = 1.0 % Q = 0.02 % T = 0.01 %	BX = Conductive foam box

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





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