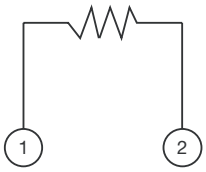
High Value Precision SIP

FEATURES

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

Pb-free Available
RoHS* COMPLIANT

SCHEMATIC



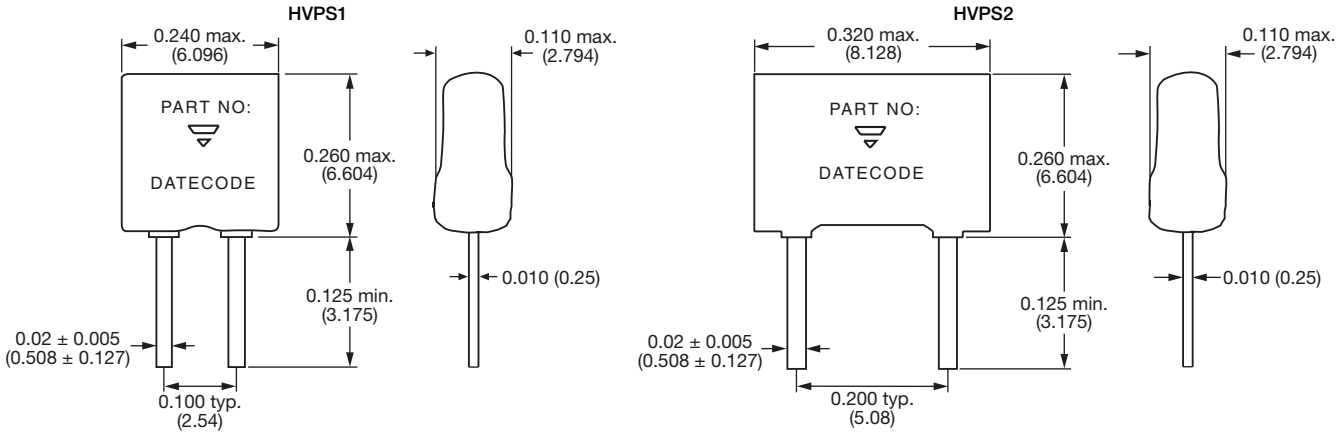
APPLICATIONS

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

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	**SPECIFICATIONS**	**CONDITIONS**
Material	Passivated nichrome	-
Pin/Lead Number	2	-
Resistance Range	50 000 Ω to 5000 kΩ (HVPS1) 100 000 Ω to 10 000 kΩ (HVPS2)	-
TCR: Absolute	5 ppm/°C to 25 ppm/°C	- 55 °C to + 125 °C
TCR: Tracking	-	-
Tolerance: Absolute	± 0.01 % to ± 1.0 %	Maximum at + 70 °C
Tolerance: Ratio	-	-
Power Rating: Resistor	125 mW (HVPS1) 250 mW (HVPS2)	-
Power Rating: Package	-	-
Stability: Absolute	ΔR ± 0.05 %	2000 h at + 70 °C
Stability: Ratio	-	-
Voltage Coefficient	< 1.0 ppm/V	-
Working Voltage	250 V (HVPS1) 300 V (HVPS2)	-
Operating Temperature Range	- 55 °C to + 125 °C	-
Storage Temperature Range	-	-
Noise	< - 30 dB	-
Thermal EMF	< 0.1 µV/°C	-
Shelf Life Stability: Absolute	ΔR ± 0.01 %	1 year at + 25 °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

H	**V**	**P**	**S**	**1**		**E**	**1**	**0**	**0**	**3**	**Q**	**B**	**X**
H	**V**	**P**	**S**	**2**	**S**	**Y**	**2**	**0**	**0**	**3**	**T**	**B**	**X**

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)

HVPS1	E	5004	B
SERIES	TCR CHARACTERISTICS	RESISTANCE	TOLERANCE

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