

## High Value Resistors

### Type HBS Series

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The HBS is a high voltage plate resistor offering resistance values up to 1 Teraohm and working voltages up to 30 KV. A tough lacquer coating encapsulates the product so that excellent TCR's and VCR's are maintained. This is a sister product to the HB Series, effectively extending the value range that is available. Further options are also available with the ability to produce custom designs relatively quickly where quantities justify.

#### Key Features

- Element Voltage up to 30KV
- Excellent Size to Power Ratio
- Resistance Values up to 1 Tera Ohm
- High Reliability
- Low Noise at Low Values
- Non Inductive
- Custom Designs Particularly Welcome

#### Characteristics - Electrical

	HBS30	HBS40	HBS50
<b>Working Voltage KV Max.</b>	10.0	20.0	30.0
<b>Watts at 70°C</b>	1.0	1.2	3.0
<b>Value Range</b>	1 Meg - 1 Teraohm	1 Meg - 1 Teraohm	1 Meg - 1 Teraohm
<b>Resistance Tolerance:</b>	1%, 2%, 5%, 10%, 20%, 30%		
<b>Temperature Coefficient:</b>	1M to 99M9 ±50, 100 ppm/°C 100M to 999M9 ±50, 100, 250 ppm/°C 1G to 99G9 ±100, 250, 500 ppm/°C 100G to 1T ±250, 500, 1000 ppm/°C		
<b>Voltage Coefficient:</b>	1M to 99M9 <20ppm/V 100M to 999M9 <100ppm/V 1G to 99G9 <500ppm/V 100G to 1T <1000ppm/V		

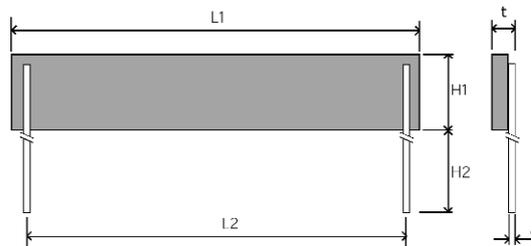
N.B: Measuring Voltage of 10KV is used

#### Characteristics - Environmental

<b>Ambient Temperature Range:</b>	T.C.R >100ppm: -55°C to +125°C T.C.R <100ppm: +25°C to +125°C
<b>Climatic Category:</b>	55/125/56
<b>LONG TERM STABILITY</b>	
<b>Storage 125°C/1000 hrs &lt;10 Gig:</b>	Less than 1%
<b>Storage 125°C/1000 hrs &gt;10 Gig:</b>	Less than 2%
<b>Maximum Voltage/1000 hrs &lt;10 Gig:</b>	Less than 1%
<b>Maximum Voltage/1000 hrs &gt;10 Gig:</b>	Less than 2%
<b>Encapsulation:</b>	Lacquer Coating

#### Dimensions

Packaging: Plastic bags or tubes. Minimum Order Qty: 100 Pieces per value



Type	L1±0.5	L2±0.5	H1±0.5	H2+0.0/-2.0	t±0.5	d±0.5
HBS30	30	27.5	6	20	1.0	0.4
HBS40	40	37.8	6	20	1.0	0.4
HBS50	50	47.8	12.5	20	1.0	0.4

#### How to Order

HBS	30	1M0	J	Z
<b>Common Part</b>	<b>Power Dissipation at 70°C</b>	<b>Resistance Value</b>	<b>Tolerance</b>	<b>Temp. Coefficient of Resistance</b>
HBS	30 - 1.0 Watts 40 - 1.2 Watts 50 - 3.0 Watts	1 Meg ohm (1,000,000 ohms) 1M 1 Gig ohm (1,000,000,000 Ohms) 1G 100 Gig ohm (100,000,000,000 ohms) 100G 1 Tera ohm (1,000,000,000,000 ohms) 1T0	F - 1% G - 2% J - 5% K - 10% M - 20% N - 30%	C - 50ppm Z - 100ppm DB - 250ppm AZ - 500ppm BZ - 1000ppm (See above for value ranges)