



# HVB1 高能陶瓷电阻

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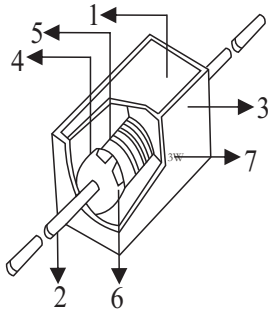


本体颜色: Body Color  
 标准品: Standard (White 白色)  
 标示: Marking  
 文字: Alphanumeric (1W~100W)  
 (根据客户要求提供相应标识)  
 (According to the customer request to provide corresponding identification)

## 特性 Feature

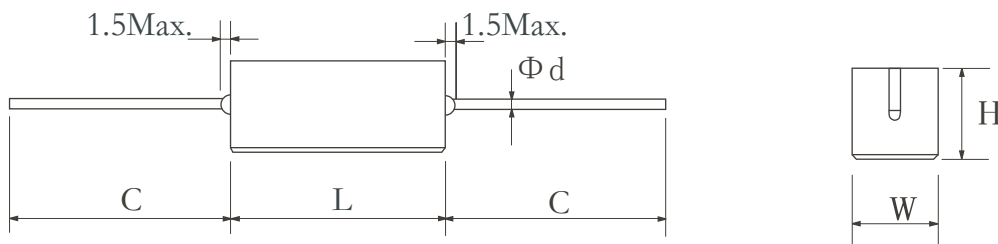
- I 完全不可燃和高度绝缘性的安全设计  
 Compact type with safety design of non-flammability and insulation
- II 长期稳定性优良 Stable long life
- III 低电感设计产品 Low inductance
- IV 符合欧盟RoHS要求 Products meet EU-RoHS
- V 负温度系数特性  $-1500\text{ppm}/^{\circ}\text{C} \leq \text{T C R} \leq -900\text{ppm}/^{\circ}\text{C}$

## 结构图 Construction



1	二氧化硅填充料 SiO <sub>2</sub> materials
2	镀锡铜线 Tinned copper lead wire
3	陶瓷壳 Ceramic shell
4	高能电阻芯 High energy resistor core
5	非线绕非膜式的独特结构 The special structure with non wire wound and non electric conduction film
6	镀锡铁帽 Tinned iron cap
7	标示 Making

## 外形尺寸 Dimensions



规格 Type	功率 Power	尺寸 Dimensions (mm)				
		L ± 1.5	W ± 1	H ± 1	C ± 3	d ± 0.05
HVB1	10W	75.0	18.0	18.0	35.0	1.0

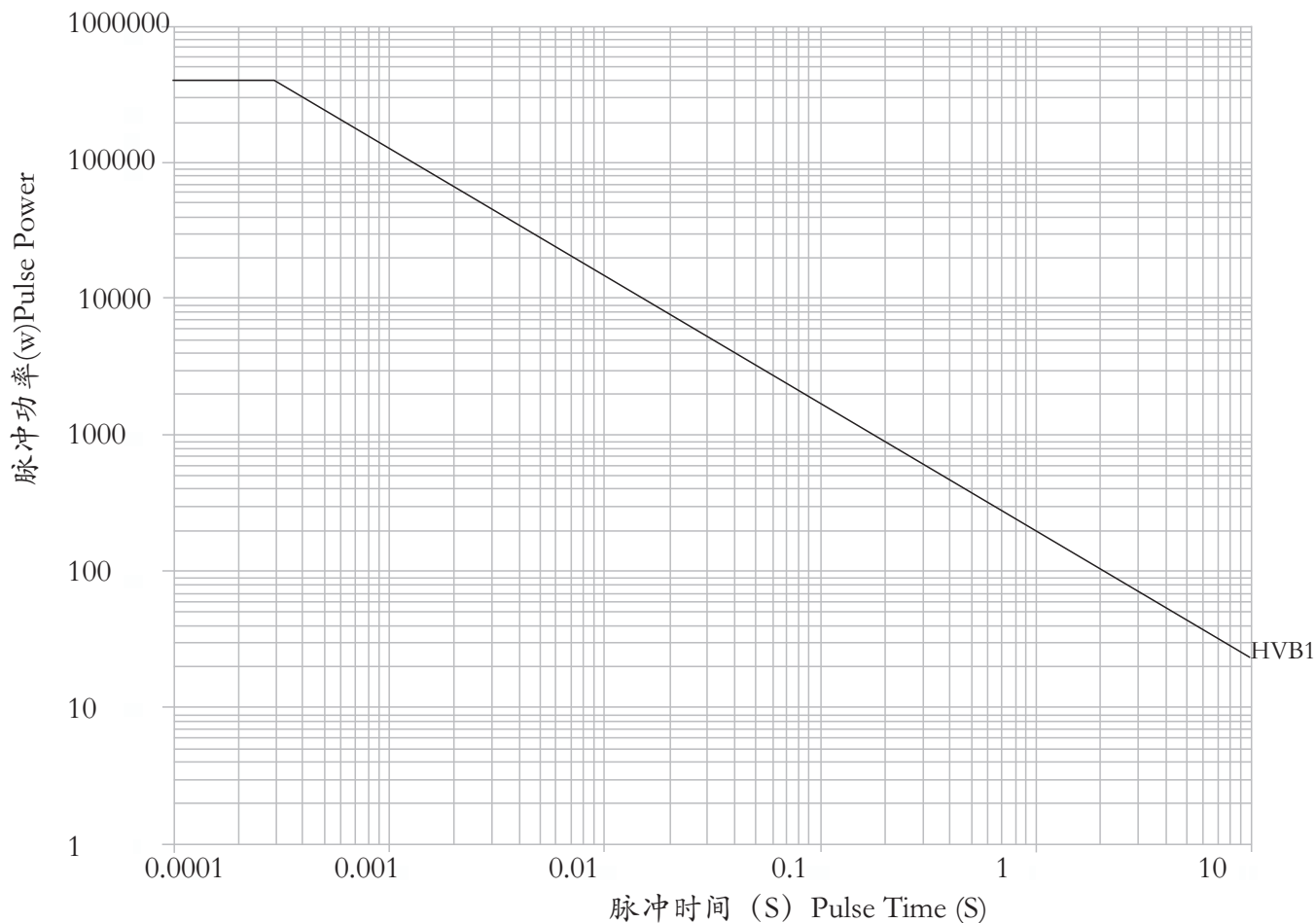
## 功率、阻值范围与耐电压 Power And Resistance etc

额定功率 Rated Power (W)	阻值范围 Resistance Range (Ω)	最高使用电压 Max Working Voltage	最高负荷电压 Max Overload Voltage	耐电压 Dielectric Withstanding Voltage	最高脉冲电压 Max. Pulse Voltage	温度系数 T.C.R
10	10R~50KR	$\sqrt{PR}$	$2.5\sqrt{PR}$	2000V	30KV	-800 ± 300 PPM/°C (R < 100Ω) -1200 ± 300 PPM/°C (R > 100Ω)

参考规格 Reference Standards

JIS C 5201-1

脉冲功率曲线 (单脉冲) Pulse Limiting Power(Po) One Pulse



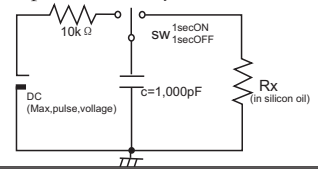
料号编码 Ordering Information

例 example

HVB1	10	K	100	A
型号 Type	额定功率 Rated Power	误差值 Tolerance	电阻值 (Ω) Resistance	特殊码 Serial code
HVB1	10:10W	K ± 10%	100R0=100R	A: 高能电阻芯 High energy resistor core

电气性能测试 (参照标准JIS C5201-1、IEC60115-1)

Performance(Reference Standards:IEC60115-1 and JIS C5201-1)

试验项目 Test Items	标准值 Performance Requirements		试验方法 Test Methods	
	保证值Limit	代表值 Typical		
电阻值 Resistance	在规定的允许偏差内 Within specified tolerance	-	25°C 电阻值Resistance	测定电压Measuring voltage
			3.3Ω-8.2Ω	0.3V
			10Ω-82Ω	1.0V
			100Ω-390KΩ	3.0V
电阻温度系数 T.C.R	-900 ± 300°C *10 /K(R < 100Ω) -6 -1200 ± 300°C *10 /K(R ≥ 100Ω)	-	+25°C / -40°C, and +25°C / +125°C	
电压系数 (在1 KΩ以上适用) Voltage Coefficient (Apply for 1KΩ or over)	0 ~ -0.20%/V (HVB1/2) 0 ~ -0.10%/V (HVB1) 0 ~ -0.05%/V (HVB2/3/4/5)	-	额定电压和额定电压X10% Rated voltage and rated voltage*10%	
过载 (短时间) overload(short time)	≤ ΔR ± (2%+0.05Ω)	0.4	额定电压X2.5倍或最高过载电压中低的一方施加5秒 Rated voltage*2.5 or Max.overload vol. whichever is lower for 5s	
高压脉冲 Resistance to pulse	≤ ΔR ± (5%+0.05Ω)	-	<p>在试验电路中, 从最高脉冲电压上充电的电容器, 以1秒ON、1秒OFF向电阻循环施加高压脉冲10000次。 The resistor mounted on to the test circuit as below is applied with high voltage impulse 10,000 cycles.</p> 	
耐焊接热 Resistance to soldering heat	≤ ΔR ± (2%+0.05Ω)	0.8	350°C ± 10°C、3.5S ± 0.5S	
温度突变 Rapid change of temperature	≤ ΔR ± (2%+0.05Ω)	0.4	-40°C (30min) / +85°C (30min) 5 cycles	
耐湿负荷 Moisture resistance	≤ ΔR ± (5%+0.05Ω)	0.6	40°C ± 2°C .90%-95%RH,1000h 1.5小时ON\0.5小时OFF的周期 40°C ± 2°C .RH,1000h 1.5h ON\0.5h OFF cycles	
额定负荷 Load life	≤ ΔR ± (5%+0.05Ω)	0.4	40°C ± 2°C,1000h1.5小时ON\0.5小时OFF的周期 40°C ± 2°C,1000h 1.5h ON\0.5h OFF cycles	
高温放置 High temperature exposure	≤ ΔR ± (5%+0.05Ω)	1.7	+200°C, 1000h	
耐溶剂性 Resistance to solvent	应外观无异常, 表示可以容易地辨认 No abnormality in appearance. Marking shall be easily legible	-	在异丙醇或二四苯中浸3分钟, 除去滴液后放置10分钟后, 刷10次 Dipping in IPA or Xylene for 3 min.and leaving for 10 min.after removing drops,then brushing 10 times.	