#### Features

- 1. This product has a low temperature coefficient of resistance and features a choice of  $100 \times 10^{-6/\circ}$ C (K type) and  $200 \times 10^{-6/\circ}$ C (D type).
- 2. Extremely stable characteristics.
- 3. A wide range of high resistance values available.
- 4. Various resistance tolerance available.
- 5. Most suitable resistor for high-tension circuits in which high precision is required for example the physical and chemical measurement equipment, X-ray apparatus, electron microscope and the like.



### Dimensions



#### Part Number Description

Example



\*Marking and label indication for Temperature Coefficient Resistance HVD :  $\pm 100 \times 10^{-6/\circ} C$  HVS :  $\pm 200 \times 10^{-6/\circ} C$ 

# FIXED HIGH VOLTAGE RESISTORS; PRECISION

#### Ratings

Style	Rated Dissipation W	Limiting Element Voltage kV	Maximum Overload Voltage kV	Pulse Voltage kV	Combination of Temperature Coefficient of Resistance and rated Resistance Range		
					Rated Resistance Range M ohm	Temperature Coefficient of Resistance 10 <sup>*/°</sup> C	Tolerance on Rated Resistance
RH 1	1.0	1.5	4	4			
RH 2	2.0	5	12.5	7.5		±100 ±200	F (± 1%) G (± 2%) J (± 5%)
RH 3	3.0	10	25	15	1≤R≤500		
RH 4	4.0	15	30	20	500 <r≤5,000< td=""></r≤5,000<>		
RH 6	6.0	20	40	30			K (±10%)
RH 8	8.0	30	60	40			

Note1. Rated Voltage=  $\sqrt{(Rated Dissipation) \times (Rated Resistance)}$ . (d.c. or a.c. r.m.s. Voltage)

Note2. Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.

Note3. Critical Resistance Value is the resistance value at which the rated voltage is equal to the limiting element voltage.

# Derating Curve

The derated values of dissipation for temperatures in excess of  $40^{\circ}$ C shall be indicated by the following Curve.

![](_page_1_Figure_9.jpeg)

# Performance Characteristics

Description	Requirements	Test Method JIS C5202-1990		
Resistance	Within specified tolerance	clause 5.1		
Temperature characteristic of resistance	See Ratings Table	clause 5.2	Room temperature and 80°C above.	
Overload	Within $\pm$ 1% No major visible damage	clause 5.5	Condition A Rated voltage × 2.5, 5s	
Insulation resistance	At least 1,000M ohm	clause 5.6	Condition A 500Vd.c., 60s	
Pulse endurance	Within $\pm$ 1% No major visible damage	Apply (1.2×50)μs See ratings table	pulse wave 10,000 times 10s each. for pulse Voltage.	
Bond Strength Pulling	Load is not out Tarminal is not load	clause 6-1-2(1)	25N, 10s	
of the face plating Bending	Lead is not cut reminants not loose	clause 6-1-2(4)	90°C, opposite directions 5 times.	
Solderability	At least 3/4 of the dipping surface must be covered by new solder	clause 6.5	260°C, 5s	
Rapid change of temperature	Within $\pm$ 1% No major visible damage, legible marking	clause 7.4	-25°C/+85°C for 5 cycles.	
Humidity (Normal Condition)	Within $\pm$ 5% No major visible damage	clause 7.5	40°C, 95%R.H., 1,000h.	
Endurance at 70°C	Within $\pm$ 5% No major visible damage	clause 7.10	Rated voltage, 1.5h "ON", 0.5h "OFF", 40°C, 1,000h.	

\*We have equivalent products for the use in insulating oil. Please contact us for further information.

# RH