

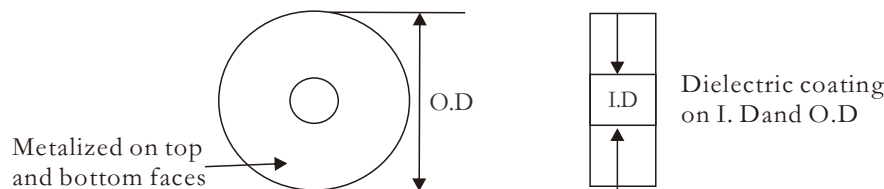
● Features

- I .100% Active Material
- II .High Surge Energy Rating
- III .High Voltage Withstand
- IV .Essentially Non-Inductive
- V .Wide Resistivity Range
- VI .Wide Range of Geometries
- VII .Air / Oil / SF6 Environments
- VIII Single Disc or Modular Assemblies
- IX .Custom Solutions Readily Available
- X .Free Design Service

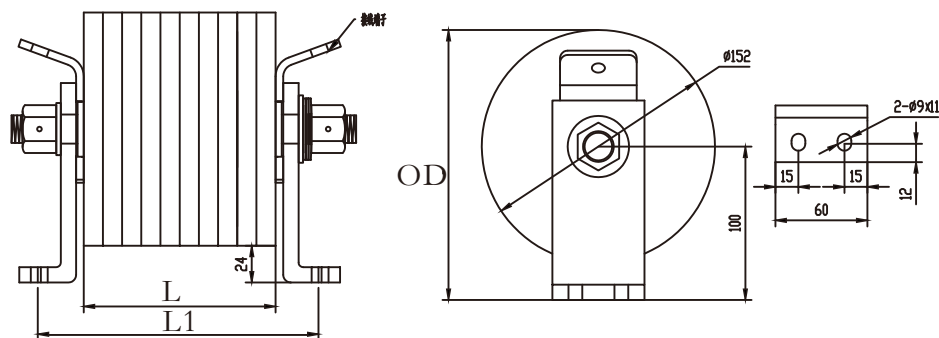
● Applications

HJR High Energy resistors are most often used for low repetition rate discharge, crowbar, pulse shaping or other impulse duty. In practice, a resistor or combination is selected to yield no more than 100°C rise for the expected applied energy. Because of the large mass, a relatively long cooling time is required between pulses, or additional heat capacity must be allowed for. Our applications spreadsheet (MS Excel, available on diskette) can be used to easily model heat-up and cool-down profiles for your specific application.

● Dimensions



Type	Part Number	O.D (mm)	I.D (mm)	Thickness1 (mm)'	Energy2 (k Joules)	Impulse volts3 (kvolts)	Resistance (ohms)
HJR	32	32	11	25.4	5.0	18.7	2.0-10K
	50	50	20	25.4	12	20.4	1.0-3.3K
	75	75	26	25.4	25	23.3	0.5-1.0K
	112	112	34	25.4	67	26.2	0.2-390
	152	152	26	25.4	110	28.3	0.10-100



Type	Part Number	L (mm)	L1 (mm)	OD		Resistance (ohms)
HJR	32					2.0-10K
	50					1.0-3.3K
	75					0.5-1.0K
	112					0.2-390
	152					0.10-100

Reference Standards

JIS C 5201-1

Performance

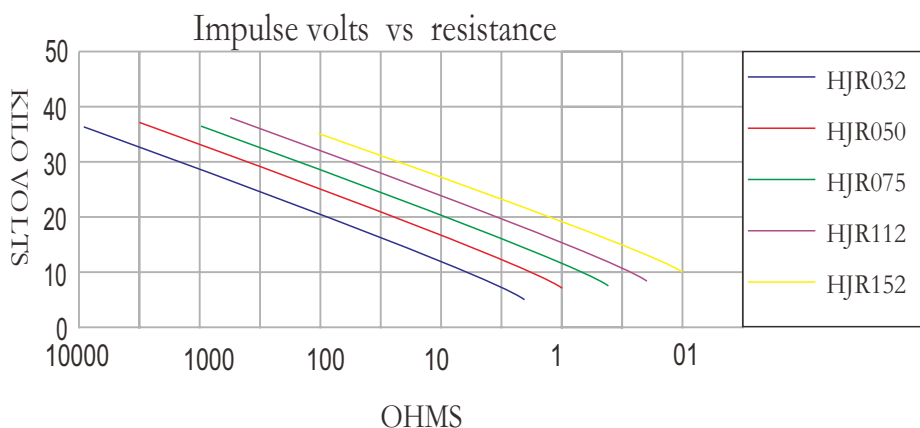
Resistance Tolerance:	± 20%, ± 10% and ± 5% available as standard
T.C.R	-0.05% to -0.15% per ° C Temperature Rise depending on Resistivity Value. TCR = $0.16 \times e^{-(\log R/1.4)} - 0.135$ (%/° C Temperature Rise)
Inductance	This is negligible (nH) and the resistors may be described as non-inductive. In (reduces stiffness ratio) to provide the reliable mounting force described below :practice the inductance of connecting leads will be greater than that of the resistors.

Power Dissipation

Continuous power dissipation for HJR High Energy resistors is a function of mounting method used. In free air, .25 watt per cm² of exposed surface area is a conservative rule of thumb. Thus, a 50mm disk with both faces and the periphery exposed could easily dissipate 20 watts. Higher power dissipation is achieved by conduction cooling through the mounting surface, applying an air or water cooled heat sink to either or both faces. See product information describing Custom Assemblies for more information on this subject, or consult our applications group.

Derating Curve

Maximum impulse voltage is mainly a function of resistance value and pulse width, and to a lesser extent, surface temperature and dielectric medium. The chart below shows the range of maximum impulse voltage for the standardized 1.2/ 50 μsec. pulse width in air.,which indicates the range and relative impulse ratings for thevarious standard sizes.Our applications group can assist you in assessing the correct parameters for your application.



Ordering Information

Example:

HJR	032	T	A	2R0	J
Product Name	Diameter (mm)	thickness code	I.D code (mm)	Resistance	Tolerance
HJR	032 050 075 112 152	T=25.4 C=Custom thickness	A=26 B=34 C=20 D=11	Example 2.0R 2R0 0.5R 0R5 3.3K 3K3	J= ± 5% K= ± 10% L= ± 20%