HJW Ceramic Composition Resistor

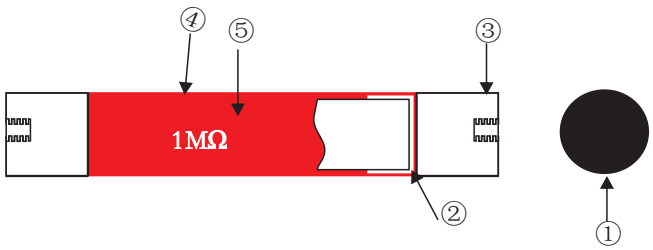
Features

Ⅰ .High Surge Energy Rating
Ⅱ.High Voltage Withstand
Ⅲ.Essentially Non-Inductive
Ⅳ.Air / Oil / SF6 Environments
Ⅴ.Air and water cooled cariants
Ⅵ.Range of Terminations Available
Ⅶ.Custom Solutions Available

Applications

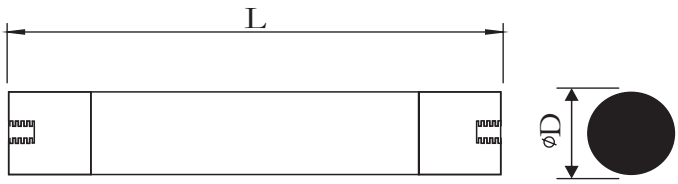
- Motor drive circuits
- RF dummy loads
- Harmonic filter
- X-ray equipment
- Capacitor charge/discharge
- Snubber circuits
- Dynamic braking
- Impulse generators
- High voltage power supplies
- Bleeder
- High-frequency circuits
- Transformer protection
- High-voltage circuits
- Laser/Imaging equipment
- Capacitor charge/discharge

Constructions



①	Ceramic composite (non-hollow) M6 outlet		
②	Inner electrode	④	Coating
③	Electrode cap	⑤	Marking

Dimensions



Type	Power @40°C (W)	Dimensions(mm)		Range Resistance(Ω)		Peak Engr (Joules)	Peak Voltage
		L±1.5	D±1.0	Min	Max		
HJW	20	50.0	12.0	1.0Ω	1MΩ	800J	10KV
	30	60.0	16.0	1.0Ω	1MΩ	1000J	15KV
	40	80.0	20.0	1.0Ω	1MΩ	2000J	20KV
	50	120.0	20.0	1.0Ω	1MΩ	4000J	30KV
	60	150.0	20.0	1.0Ω	1MΩ	8000J	35KV
	70	200.0	25.0	1.0Ω	1MΩ	10000J	40KV
	80	300.0	25.0	1.0Ω	1MΩ	20000J	50KV
	100	400.0	25.0	1.0Ω	1MΩ	28000J	70KV

Reference Standards

JIS C 5201-1

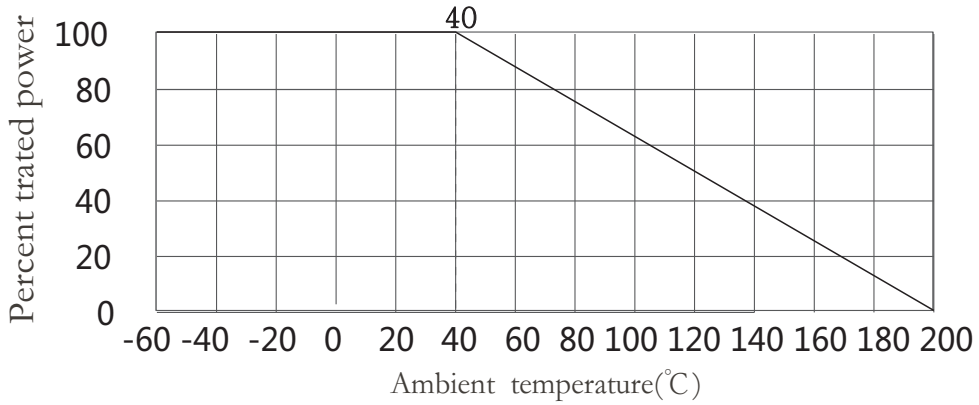
Ordering Information

Example

HJW	20W	J	100Ω
(1)	(2)	(3)	(4)
Type	Power Rating	Resistance Tolerance	Resistance Value

(1)Type:HJW
(2)Power Rating:20W,30W,40W,50W,60W,70W,80,100W
(3)Resistance Tolerance:F=1%,J=5%,K=10%
(4)Resistance Value:100Ω00=100Ω， 1KΩ00=1KΩ

Derating Curve



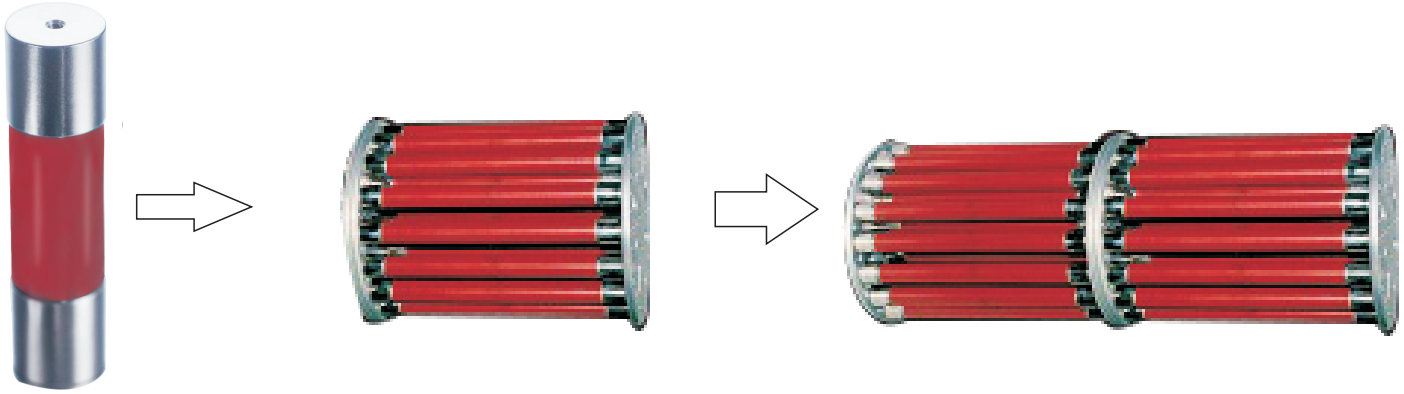
For resistors operated at an ambient temperature of 40℃or above, a power rating shall be derated in accordance with the derating curve.

Performance

Item	Test Methods
Working temperature;	230℃
Temperature coefficient：	- 0 . 15 % / ℃ Max
Voltge coefficiebt :	- 5 % KV / Cm Max forv specific resistance of 3000Ω. cm or low - er , refer to below .
Withstand voltage(1.2x50 μS):	5kv/cm Max
load life stability(500h)	± 7% Max
Short time overload: (10 times of rated power for 5 sec)	± 2% Max
Bulk density:	2.65
Specific heat:	630~1250 J(kg.k)
Max working temperature:	250℃
Short time allowable injection energy ：	90J /cm3Max

Resistor combination unit diagram

According to customer needs, provide combination units to meet the requirements of higher Joule energy and appropriate resistance value.



Alternative design options

In some applications, it may be necessary to include other components so that the Resistor Assembly will meet Electrical, Thermal and Mechanical Design Specifications.

These may include:

- Using a High Tensile Steel Bolt and Insulating Bushes for UL94 V-0 Regulations
- Aluminium Ferrule / Spacers for increased Average Power Rating
- Aluminium Cooling Fins for increased Average Power Rating
- Water Cooled Plates for increased Average Power Rating. If required, Cooling Plates can be electrically isolated from the Resistor Discs.
- High Current Terminals for Optimum Current Distribution
- High Current Terminal / Spacers for Improved Average Power Rating
- Customised Components where required e.g. Tinned Copper Terminals
- Customer Specific Components e.g. Thermal Switches