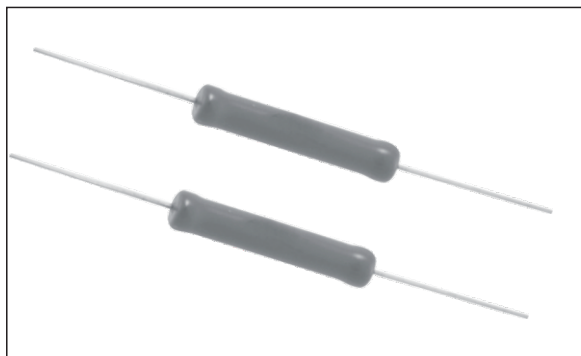


## HEY Ceramic Composition Resistors

### Catalogue

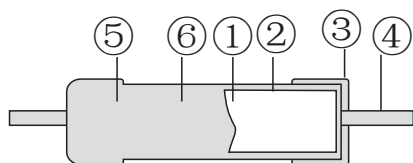
- Features
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- Derating Curve
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## Feature

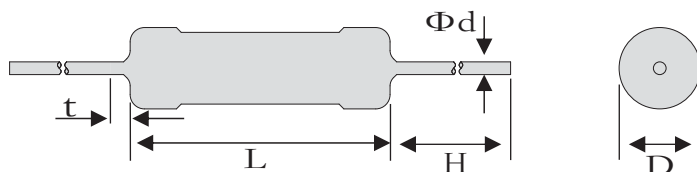
- I Suitable for automatic machine insertion.
- II Ideal for high energy/high peak power applications.
- III Products with lead-free terminations meet EU RoHS requirements.
- IV Higher reliability against disconnection compared to wirewound resistors and film resistors.

## Construction



①	Resistive body	④	Lead wire
②	Inner electrode	⑤	Coating
③	Electrode cap	⑥	Marking

## Dimensions



Type	power (W)	Dimensions(mm)				
		L±0.5	t Max	D±0.5	Φd±0.05	H±3
HEY	5W	46	3.0	9	1.0	31

## Specifications

Type	Power (W)	Resistance Range(Ω)	Tolerance	Joules max.**	MaxWorking Voltage
HEY	5W	10Ω~390KΩ	K±10%	400	550

\* at 25°C. \*\*For a single impulse.

## Ordering Information

Example:

HEY	5	K	R100
(1)	(2)	(3)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance

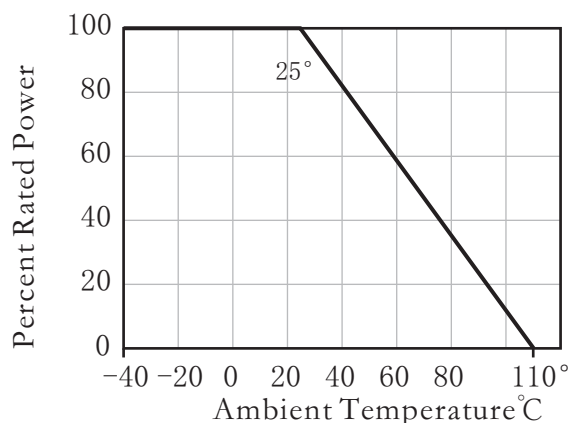
(1)Type: HEY SERIES

(2)Power Rating: 5=5W

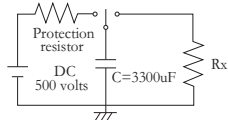
(3)Tolerance: K= ±10%

(4)Resistance Value:R100=0.1R、1R00=1Ω、10R0=10Ω、100R0=100Ω

## Derating Curve



## Characteristics

Test Condition		Requirement $\Delta R \pm (+0.05\Omega)$	
Resistance	Resistance	Within regulated to tolerance	
	3.3 $\Omega$ ~8.2 $\Omega$		0.3V
	10 $\Omega$ ~82 $\Omega$		1.0V
	100 $\Omega$ ~390k $\Omega$		3.0V
TCR	+25°C / -40°C and +25°C / +125°C	<100 $\Omega$ : -900+/- 300ppm ≥100 $\Omega$ : -1200+/-300ppm	
Voltage Coefficient	Rated voltage and rated voltage x 10% (Apply for over 1k $\Omega$ )	0~-0.05%/V	
Overload	Rated voltage x 2.5 or maximum overload voltage for 5s, whichever less	±2% limit; 0.4% typical	
Single impulse rating	The resistor mounted to the test circuit at right. Single impulse test of 10 ohm resistor resulting in 3.3ms.	±5% 	
Resistance to soldering heat	350°C ± 10°C, 3.5s ± 0.5s	±2% limit; 0.8% typical	
Rapid change of temperature	-40°C (30min.) / +85°C (30min.) 5cycles	±2% limit; 0.4% typical	
Moisture resistance	40°C ± 2°C, 90%~95%RH, 1000h, 1.5h ON/0, 5h OFF cycles	±5% limit; 0.6% typical	
Load life	40°C ± 2°C, 1000h, 1.5h ON/0, 5h OFF cycles	±5% limit; 0.4% typical	
Resistance to Solvent	Dipping in IPA or Xylene for 3 minutes and leaving for 10 minutes after removing drops, then brushing 10 times.	No abnormality in appearance. Marking shall be easily legible.	
Pulse Tolerance	200V, 112 Joules, 10000 cycles, 5600uf capacitor discharge, 26 second rest time	±2%	
Power Rating	Based on 25° C free air rating		
TCR	-900 ± 300: R < 100 $\Omega$ , -1200 ± 300: R ≥ 100 $\Omega$		
Voltage	Abs. max. working: 550V, Abs. max. overload: 1100V, Abs. max. pulse: 25kV		
Operating Temp. Range	-40°C to +110°C		
Tolerance	±10% standard		