

# EY Series

**Ceramic Composition  
10% Tolerance**



## FEATURES

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

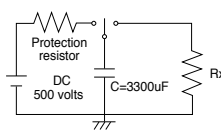
## SERIES SPECIFICATIONS

Series	Watts max.*	Resistance range	Tolerance	Joules max.**	Max. working volts
EY	2.5	10Ω - 390KΩ	±10%	400	550

\* at 25°C. \*\*For a single impulse.

## CHARACTERISTICS

Test	Condition	Requirement $\Delta R \pm (+0.05\Omega)$
<b>Resistance</b>	<b>Resistance</b>	Within regulated to tolerance
	<b>Measurement voltage</b>	
	3.3Ω~8.2Ω 0.3V 25°C	
	10Ω~82Ω 1.0V	
	100Ω~390kΩ 3.0V	
<b>TCR</b>	+25°C/-40°C and +25°C/+125°C	<100Ω: -900/+/- 300ppm ≥100Ω: -1200/+/-300ppm
<b>Voltage Coefficient</b>	Rated voltage and rated voltage x 10% (Apply for over 1kΩ)	0~-0.05%/V
<b>Overload</b>	Rated voltage x 2.5 or maximum overload voltage for 5s, whichever less	±2% limit; 0.4% typical
<b>Single impulse rating</b>	The resistor mounted to the test circuit at right. Single impulse test of 10 ohm resistor resulting in 3.3ms.	±5%
<b>Resistance to soldering heat</b>	350°C±10°C, 3.5s±0.5s	±2% limit; 0.8% typical
<b>Rapid change of temperature</b>	-40°C(30min.)/+85°C(30min.), 5 cycles	±2% limit; 0.4% typical
<b>Moisture resistance</b>	40°C±2°C, 90%~95%RH, 1000h, 1.5h ON/O, 5h OFF cycles	±5% limit; 0.6% typical
<b>Load life</b>	40°C±2°C, 1000h, 1.5h ON/O, 5h OFF cycles	±5% limit; 0.4% typical
<b>Resistance to Solvent</b>	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.



**Power Rating** Based on 25°C free air rating

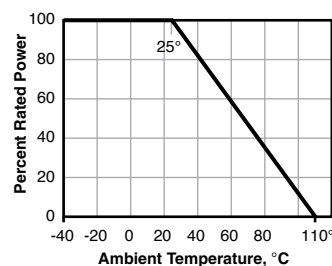
**TCR** -900±300: R<100Ω  
-1200±300: R≥100Ω

**Voltage** Abs. max. working: 550V  
Abs. max. overload: 1100V  
Abs. max. pulse: 25kV

**Operating Temp. Range** -40°C to +110°C

**Tolerance** ±10% standard

## Derating



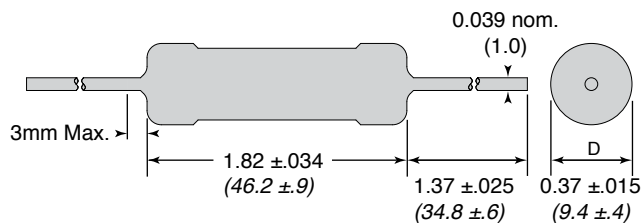
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# EY Series

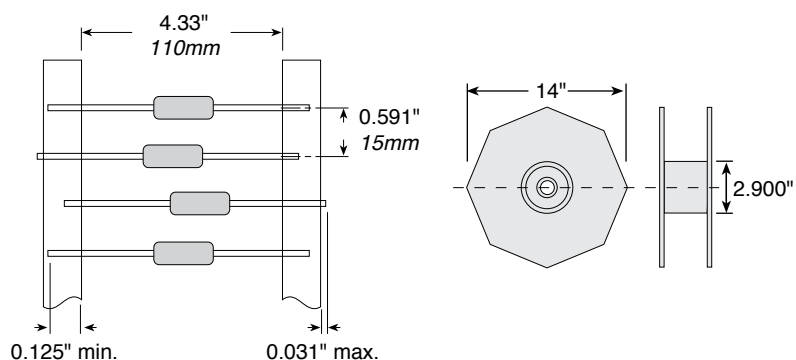
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## DIMENSIONS

in./mm



## Tape and Reel Dimensions



## ORDERING INFORMATION

**E Y 1 0 1 K E -TR**

RoHS Compliant

Packaging  
TR = tape & reel  
B = bulk

Series: E, Y  
 Ohm Value: 1, 0, 1  
 Example:  
 100 = 10 $\Omega$   
 101 = 100 $\Omega$   
 102 = 1,000 $\Omega$

Tolerance: K = 10% Standard

### Standard values

EY100KE	EY471KE
EY150KE	EY681KE
EY180KE	EY102KE
EY270KE	EY152KE
EY330KE	EY272KE
EY470KE	EY472KE
EY680KE	EY103KE
EY101KE	EY153KE
EY151KE	EY473KE
EY271KE	EY104KE