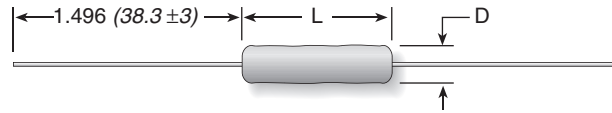


# OX/OY Series



**Ceramic Composition**  
**10% Tolerance**  
**RoHS compliant**



The OX/OY Series of fixed ceramic resistors are ideal for circuitry associated with surges, high peak power or high energy. They offer enhanced performance in high voltage power supplies, R-C snubber circuits, and inrush limiters. The OX/OY resistors can often replace carbon composition resistors which can be difficult to source.

## FEATURES

- Replaces 1 and 2 watt carbon composition resistors
- Meets high energy density demands
- High peak power
- 10% Tolerance

## SPECIFICATIONS

### Material

**Terminals:** Solder-coated axial leads

**Coating:** UL-94 V0 approved silicone

**Derating:** Linear from 100% @ +70°C to 0% @ +200°C

### Electrical

**Tolerance:** ±10% standard

**Power Rating:** Based on 70°C free air rating.

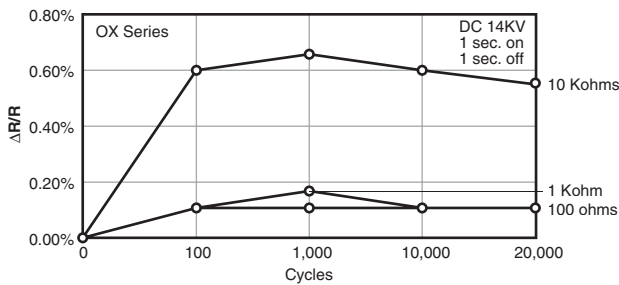
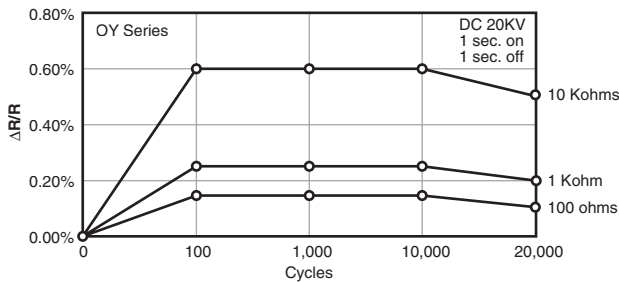
**Temperature Coefficient:** -1300 ±300ppm/°C.

Series	Watts max.*	Resistance		Length L		Diameter D	Lead diameter	Joules max.**	Max Working volts
		min.	max.	min.	max.				
OX	1	3.3	100K	0.67	17.0	0.217 ±.05/5.5±1	0.031 / 0.8	50	300
OY	2	3.3	1M	0.89	22.6	0.276 ±.05/7.0±1	0.031 / 0.8	80	400

\* at 70°C. \*\*For a single impulse.

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES											
Ohms	Part Number		Ohms	Part Number		Ohms	Part Number		Ohms	Part Number	
	1 Watt	2 Watt		1 Watt	2 Watt		1 Watt	2 Watt		1 Watt	2 Watt
3.3	OX33GKE	OY33GKE	82	OX820KE	OY820KE	2,200	OX222KE	OY222KE	56,000	OX563KE	OY563KE
3.9	OX39GKE	OY39GKE	100	OX101KE	OY101KE	2,700	OX272KE	OY272KE	68,000	OX683KE	OY683KE
4.7	OX47GKE	OY47GKE	120	OX121KE	OY121KE	3,300	OX332KE	OY332KE	82,000	OX823KE	OY823KE
5.6	OX56GKE	OY56GKE	150	OX151KE	OY151KE	3,900	OX392KE	OY392KE	100,000	OX104KE	OY104KE
6.8	OX68GKE	OY68GKE	180	OX181KE	OY181KE	4,700	OX472KE	OY472KE	120,000	—	OY124KE
8.2	OX82GKE	OY82GKE	220	OX221KE	OY221KE	5,600	OX562KE	OY562KE	150,000	—	OY154KE
10	OX100KE	OY100KE	270	OX271KE	OY271KE	6,800	OX682KE	OY682KE	180,000	—	OY184KE
12	OX120KE	OY120KE	330	OX331KE	OY331KE	8,200	OX822KE	OY822KE	220,000	—	OY224KE
15	OX150KE	OY150KE	390	OX391KE	OY391KE	10,000	OX103KE	OY103KE	270,000	—	OY274KE
18	OX180KE	OY180KE	470	OX471KE	OY471KE	12,000	OX123KE	OY123KE	330,000	—	OY334KE
22	OX220KE	OY220KE	560	OX561KE	OY561KE	15,000	OX153KE	OY153KE	390,000	—	OY394KE
27	OX270KE	OY270KE	680	OX681KE	OY681KE	18,000	OX183KE	OY183KE	470,000	—	OY474KE
33	OX330KE	OY330KE	820	OX821KE	OY821KE	22,000	OX223KE	OY223KE	560,000	—	OY564KE
39	OX390KE	OY390KE	1,000	OX102KE	OY102KE	27,000	OX273KE	OY273KE	680,000	—	OY684KE
47	OX470KE	OY470KE	1,200	OX122KE	OY122KE	33,000	OX333KE	OY333KE	820,000	—	OY824KE
56	OX560KE	OY560KE	1,500	OX152KE	OY152KE	39,000	OX393KE	OY393KE	1 MEG	—	OY105KE
68	OX680KE	OY680KE	1,800	OX182KE	OY182KE	47,000	OX473KE	OY473KE			

## RESISTANCE TO PULSE



## PERFORMANCE CHARACTERISTICS

Test	OX	OY
Max Working Voltage	300V	400V
Dielectric Strength	500V	700V
Max Overload Voltage	600V	800V
Max Pulse Voltage <sup>1</sup>	14KV	20KV
Pulse Tolerance, 100 pulses	1240V @ 52µF, 40J/ 35 sec.	1640V @ 52µF, 70J/35 sec.
Test	Condition	Maximum ΔR
Life Test	MIL-STD-202, Method 108	±5%
Short Time Overload	2x rated V, 5 sec ON @ 70°C	±(2% + 0.05ohm)
Resistance to Pulse <sup>1</sup> 20,000 cycles	1 sec ON, 1 sec OFF	±5%
Thermal Shock	MIL-STD-202, Method 107	±(2% ± 0.05 ohm)
Moisture Resistance	1000 hrs @ 40°C, 90 - 95% RH	±5%

<sup>1</sup>See figures, left

## ORDERING INFORMATION

RoHS Compliant

**OX82GKE**

<b>Size</b> OX = 1W OY = 2W	<b>Ohm Value</b> Example: 33G = 3.3 Ohms 330 = 33 Ohms 331 = 330 Ohms	<b>Tolerance</b> K = 10% Standard J = 5% Special order
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