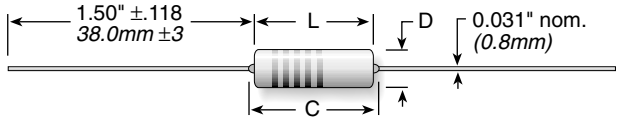
OX/OY Series

Ceramic Composition
10% Tolerance



FEATURES

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

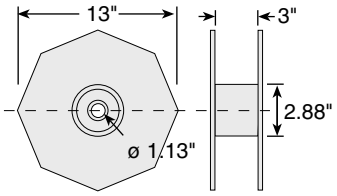
SPECIFICATIONS

Material
Terminals: Pb Free Solder-coated axial
Coating: UL-94 V0 approved silicone
Derating: Linear from 100% @ +70°C to 0% @ +200°C
Operating Temp. Range: -40°C to +220°C
Electrical
Tolerance: ±10% standard
Power Rating: Based on 70°C free air rating.
Temperature Coefficient: -1300 ±300ppm/°C.

Series	Watts max.*	Resistance min.	Resistance max.	Dimensions (in. / *mm*) Length L ±.039 *(±1.0)*	Length C max.	Diameter D ±.039 *(±1.0)*	Joules max.**	Max Working volts	Qty. per reel
OX	1	3.3	100K	0.65 / *16.5*	0.748 / *19.0*	0.217 / *5.5*	50	300	1000
OY	2	3.3	1M	0.748 / *19.0*	0.886 / *22.5*	0.276 / *7.0*	80	400	500

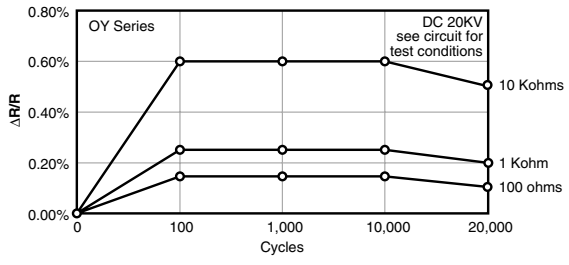
* at 70°C. **For a single impulse.

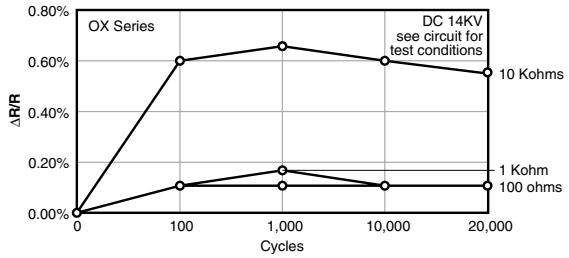
REEL DIMENSIONS

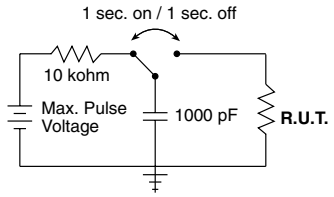


The OX/OY Series of fixed ceramic resistors are ideal for circuitry associated with surges, high peak power or high energy. They offer enhanced performance in high voltage power supplies, R-C snubber circuits, and inrush limiters. The OX/OY resistors can often replace carbon composition resistors which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

RESISTANCE TO PULSE







14KV and 20KV values used in circuit as shown; full voltage not applied directly to resistor.

PERFORMANCE CHARACTERISTICS

Test	OX	OY
Max Working Voltage	300V	400V
Dielectric Strength	500V	700V
Max Overload Voltage	600V	800V
Max Pulse Voltage[1]	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[1] 20,000 cycles	see circuit for test conditions	±5%
Thermal Shock	MIL-STD-202, Method 107	±(2% ± 0.05 ohm)
Moisture Resistance	1000 hrs @ 40°C, 90 - 95% RH	±5%

[1]See figures, left

ORDERING INFORMATION

RoHS Compliant

O X 8 2 G K E

Size
OX = 1W
OY = 2W

Ohm Value
Example:
33G = 3.3 Ohms
330 = 33 Ohms
331 = 330 Ohms

Tolerance
K= 10% Standard

Check product availability at **www.ohmite.com**

STANDARD PART NUMBERS FOR OX/OY SERIES

Ohmic value	Part No. Prefix ➤ / Suffix ▼	Wattage 1 OX	Wattage 2 OY
3.3	33GKE	✔	✔
3.9	39GKE	✔	✔
4.7	47GKE	✔	✔
5.6	56GKE	✔	✔
6.8	68GKE	✔	✔
8.2	82GKE	✔	✔
10	100KE	✔	✔
12	120KE	✔	✔
15	150KE	✔	✔
18	180KE	✔	✔
22	220KE	✔	✔
27	270KE	✔	✔
33	330KE	✔	✔
39	390KE	✔	✔
47	470KE	✔	✔
56	560KE	✔	✔
68	680KE	✔	✔
82	820KE	✔	✔
100	101KE	✔	✔
120	121KE	✔	✔
150	151KE	✔	✔
180	181KE	✔	✔
220	221KE	✔	✔
270	271KE	✔	✔
330	331KE	✔	✔
390	391KE	✔	✔
470	471KE	✔	✔
560	561KE	✔	✔
680	681KE	✔	✔
820	821KE	✔	✔
1000	102KE	✔	✔
1200	122KE	✔	✔
1500	152KE	✔	✔
1800	182KE	✔	✔
2200	222KE	✔	✔
2700	272KE	✔	✔
3300	332KE	✔	✔
3900	392KE	✔	✔
4700	472KE	✔	✔
5600	562KE	✔	✔
6800	682KE	✔	✔
8200	822KE	✔	✔
10000	103KE	✔	✔
12000	123KE	✔	✔
15000	153KE	✔	✔
18000	183KE	✔	✔
22000	223KE	✔	✔
27000	273KE	✔	✔
33000	333KE	✔	✔
39000	393KE	✔	✔
47000	473KE	✔	✔
56000	563KE	✔	✔
68000	683KE	✔	✔
82000	823KE	✔	✔
100000	104KE	✔	✔
120000	124KE		✔
150000	154KE		✔
180000	184KE		✔
220000	224KE		✔
270000	274KE		✔
330000	334KE		✔
390000	394KE		✔
470000	474KE		✔
560000	564KE		✔
680000	684KE		✔
820000	824KE		✔
1 MEG	105KE		✔