

OX/OY Series

Ceramic Composition 10% Tolerance



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



SERIES SPECIFICATIONS

Series	Watts max.*	Resistance range	Joules max.**	Max. working volts
OX	1	3.3Ω-100K	50	300
OY	2	3.3Ω-1M	80	400

* at 70°C. **For a single impulse.

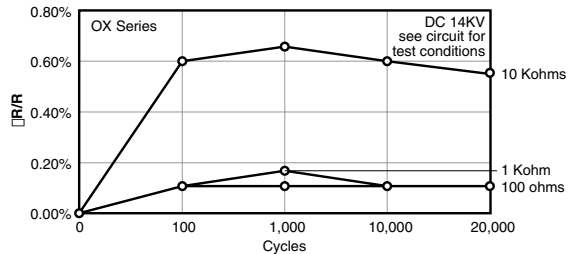
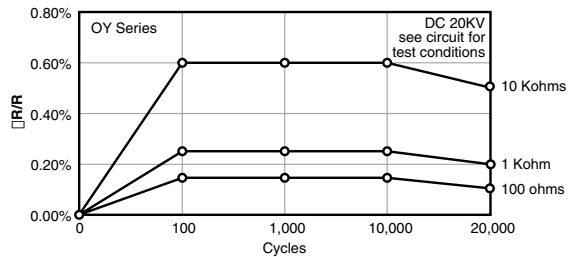
CHARACTERISTICS

Terminals	Pb-free solder-coated axial	
Coating	Silicone ceramic	
Derating	Linear from 100% @ +70°C to 0% @ +200°C	
Operating Temp. Range	-40°C to +220°C	
Tolerance	±10% standard	
Power Rating	Based on 70°C free air rating	
Temperature Coefficient	-1300 ±300ppm/°C.	

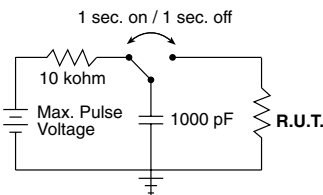
	OX	OY
Max Working Voltage	300V	400V
Dielectric Strength	500V	700V
Max Overload Voltage	600V	800V
Max Pulse Voltage¹	14KV	20KV
Pulse Tolerance, 100 pulses	1240V @ 52μF, 40J/ 35 sec.	1640V @ 52μF, 70J/35 sec.

Test	Condition	Maximum ΔR
Life Test	MIL-STD-202, Method 108	±5%
Short Time Overload	2x rated V, 5 sec ON @ 70°C	±(2% +0.05Ω)
Resistance to Pulse¹	20,000 cycles. See circuit for test conditions	±5%
Thermal Shock	MIL-STD-202, Method 107	±(2% ±0.05Ω)
Moisture Resistance	1000 hrs @ 40°C, 90 - 95% RH	±5%

Resistance to Pulse



¹See figures



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

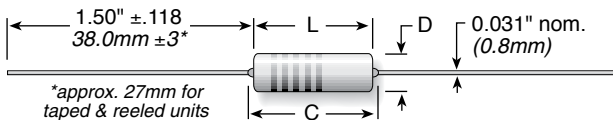
(continued)

OX/OY Series

Ceramic Composition
10% Tolerance

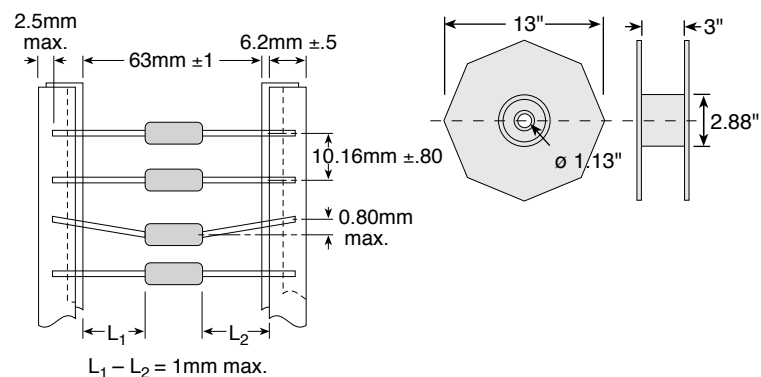
DIMENSIONS

in./mm



Series	Length L ±.039 (±1.0)	Length C max.	Diameter D ±.039 (±1.0)	Qty. per reel
OX	0.65 / 16.5	0.748 / 19.0	0.217 / 5.5	1000
OY	0.748 / 19.0	0.886 / 22.5	0.276 / 7.0	500

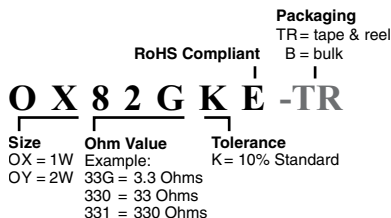
Tape and Reel Dimensions



ORDERING INFORMATION

Standard part numbers for OX/OY Series

Ohmic value	Part No. Prefix Suffix	Wattage 1 2	Ohmic value	Part No. Prefix Suffix	Wattage 1 2	Ohmic value	Part No. Prefix Suffix	Wattage 1 2	Ohmic value	Part No. Prefix Suffix	Wattage 1 2	Ohmic value	Part No. Prefix Suffix	Wattage 1 2
3.3	-33GKE	✓ ✓	27	-270KE	✓ ✓	220	-221KE	✓ ✓	1800	-182KE	✓ ✓	15000	-153KE	✓ ✓
3.9	-39GKE	✓ ✓	33	-330KE	✓ ✓	270	-271KE	✓ ✓	2200	-222KE	✓ ✓	18000	-183KE	✓ ✓
4.7	-47GKE	✓ ✓	39	-390KE	✓ ✓	330	-331KE	✓ ✓	2700	-272KE	✓ ✓	22000	-223KE	✓ ✓
5.6	-56GKE	✓ ✓	47	-470KE	✓ ✓	390	-391KE	✓ ✓	3300	-332KE	✓ ✓	27000	-273KE	✓ ✓
6.8	-68GKE	✓ ✓	56	-560KE	✓ ✓	470	-471KE	✓ ✓	3900	-392KE	✓ ✓	33000	-333KE	✓ ✓
8.2	-82GKE	✓ ✓	68	-680KE	✓ ✓	560	-561KE	✓ ✓	4700	-472KE	✓ ✓	39000	-393KE	✓ ✓
10	-100KE	✓ ✓	82	-820KE	✓ ✓	680	-681KE	✓ ✓	5600	-562KE	✓ ✓	47000	-473KE	✓ ✓
12	-120KE	✓ ✓	100	-101KE	✓ ✓	820	-821KE	✓ ✓	6800	-682KE	✓ ✓	56000	-563KE	✓ ✓
15	-150KE	✓ ✓	120	-121KE	✓ ✓	1000	-102KE	✓ ✓	8200	-822KE	✓ ✓	68000	-683KE	✓ ✓
18	-180KE	✓ ✓	150	-151KE	✓ ✓	1200	-122KE	✓ ✓	10000	-103KE	✓ ✓	82000	-823KE	✓ ✓
22	-220KE	✓ ✓	180	-181KE	✓ ✓	1500	-152KE	✓ ✓	12000	-123KE	✓ ✓	100000	-104KE	✓ ✓
														1 MEG -105KE ✓ ✓



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Ohmite:

[OX68GK](#) [OX221K](#) [OX271K](#) [OY391K](#) [OY39GK](#) [OY33GK](#) [OY394K](#) [OY471K](#) [OY47GK](#) [OY334K](#) [OY824K](#)
[OX473K](#) [OX823K](#) [OX561K](#) [OX56GK](#) [OX471K](#) [OX563K](#) [OY474K](#) [OX152K](#) [OY68GK](#) [OX121K](#) [OY221KE](#)
[OX221KE](#) [OX68GKE](#) [OX681KE](#) [OY681KE](#) [OX39GKE](#) [OX562KE](#) [OY562KE](#) [OX223KE](#) [OY223KE](#) [OY224KE](#)
[OX33GKE](#) [OY33GKE](#) [OX272KE](#) [OY272KE](#) [OY683KE](#) [OX683KE](#) [OX270KE](#) [OX121KE](#) [OY121KE](#) [OY222KE](#)
[OX222KE](#) [OY560KE](#) [OX390KE](#) [OY680KE](#) [OX150KE](#) [OY273KE](#) [OX273KE](#) [OY151KE](#) [OX151KE](#) [OX563KE](#)
[OY183KE](#) [OX183KE](#) [OX102KE](#) [OX330KE](#) [OX820KE](#) [OX47GKE](#) [OY470KE](#) [OY824KE](#) [OX220KE](#) [OY181KE](#)
[OX181KE](#) [OX100KE](#) [OX123KE](#) [OY123KE](#) [OX561KE](#) [OY561KE](#) [OY271KE](#) [OX271KE](#) [OY270KE](#) [OY330KE](#)
[OY104KE](#) [OX104KE](#) [OX823KE](#) [OY823KE](#) [OX82GKE](#) [OY102KE](#) [OX153KE](#) [OY153KE](#) [OX120KE](#) [OY152KE](#)
[OX682KE](#) [OX152KE](#) [OY682KE](#) [OY334KE](#) [OX470KE](#) [OX472KE](#) [OY472KE](#) [OY471KE](#) [OX471KE](#) [OY333KE](#)
[OX333KE](#) [OX391KE](#) [OY391KE](#) [OX392KE](#) [OY392KE](#) [OX332KE](#) [OY332KE](#) [OX473KE](#)