

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

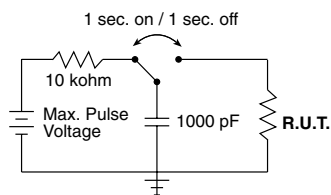
* at 70°C. **For a single impulse.

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.

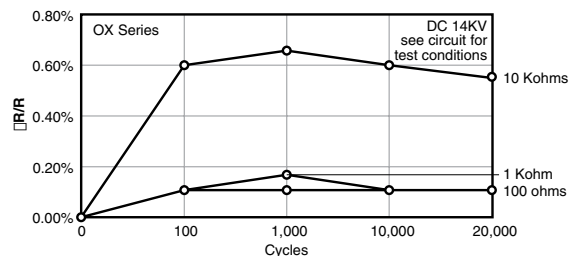
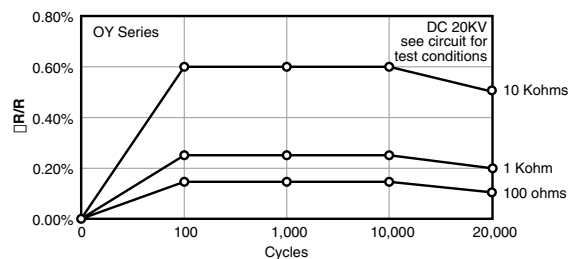
¹See figures



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

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



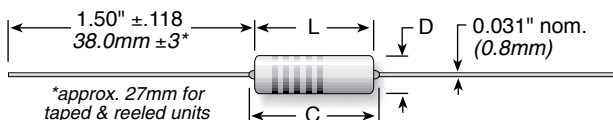
(continued)

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Ceramic Composition
10% Tolerance

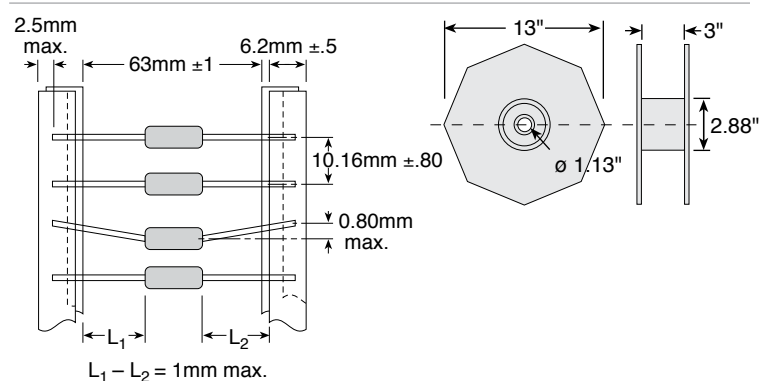
DIMENSIONS

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 ✓

RoHS Compliant

Packaging
TR = tape & reel
B = bulk

OX82GKE-TR

Size
OX = 1W
OY = 2W

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

Tolerance
K = 10% Standard

Mouser Electronics

Authorized Distributor

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

Ohmite:

<u>OY221KE</u>	<u>OX221KE</u>	<u>OX68GKE</u>	<u>OX681KE</u>	<u>OY681KE</u>	<u>OX39GKE</u>	<u>OX562KE</u>	<u>OY562KE</u>	<u>OX223KE</u>	<u>OY223KE</u>
<u>OY224KE</u>	<u>OX33GKE</u>	<u>OY33GKE</u>	<u>OX272KE</u>	<u>OY272KE</u>	<u>OY683KE</u>	<u>OX683KE</u>	<u>OX270KE</u>	<u>OX121KE</u>	<u>OY121KE</u>
<u>OY222KE</u>	<u>OX222KE</u>	<u>OY560KE</u>	<u>OX390KE</u>	<u>OY680KE</u>	<u>OX150KE</u>	<u>OY273KE</u>	<u>OX273KE</u>	<u>OY151KE</u>	<u>OX151KE</u>
<u>OX563KE</u>	<u>OY183KE</u>	<u>OX183KE</u>	<u>OX102KE</u>	<u>OX330KE</u>	<u>OX820KE</u>	<u>OX47GKE</u>	<u>OY470KE</u>	<u>OY824KE</u>	<u>OX220KE</u>
<u>OY181KE</u>	<u>OX181KE</u>	<u>OX100KE</u>	<u>OX123KE</u>	<u>OY123KE</u>	<u>OX561KE</u>	<u>OY561KE</u>	<u>OY271KE</u>	<u>OX271KE</u>	<u>OY270KE</u>
<u>OY330KE</u>	<u>OY104KE</u>	<u>OX104KE</u>	<u>OX823KE</u>	<u>OY823KE</u>	<u>OX82GKE</u>	<u>OY102KE</u>	<u>OX153KE</u>	<u>OY153KE</u>	<u>OX120KE</u>
<u>OY152KE</u>	<u>OX682KE</u>	<u>OX152KE</u>	<u>OY682KE</u>	<u>OY334KE</u>	<u>OX470KE</u>	<u>OX472KE</u>	<u>OY472KE</u>	<u>OY471KE</u>	<u>OX471KE</u>
<u>OY333KE</u>	<u>OX333KE</u>	<u>OX391KE</u>	<u>OY391KE</u>	<u>OX392KE</u>	<u>OY392KE</u>	<u>OX332KE</u>	<u>OY332KE</u>	<u>OX473KE</u>	<u>OY473KE</u>
<u>OY331KE</u>	<u>OX331KE</u>	<u>OX822KE</u>	<u>OY822KE</u>	<u>OX560KE</u>	<u>OX393KE</u>	<u>OY393KE</u>	<u>OX680KE</u>	<u>OY394KE</u>	<u>OY101KE</u>
<u>OX101KE</u>	<u>OY120KE</u>	<u>OX56GKE</u>	<u>OX182KE</u>	<u>OY182KE</u>	<u>OY100KE</u>	<u>OY180KE</u>	<u>OY220KE</u>	<u>OX821KE</u>	<u>OY821KE</u>