

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

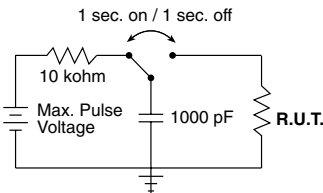
* at 70°C. **For a single impulse.

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



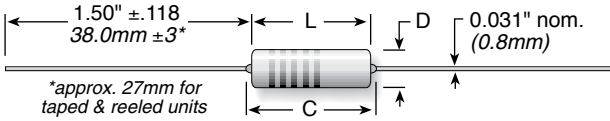
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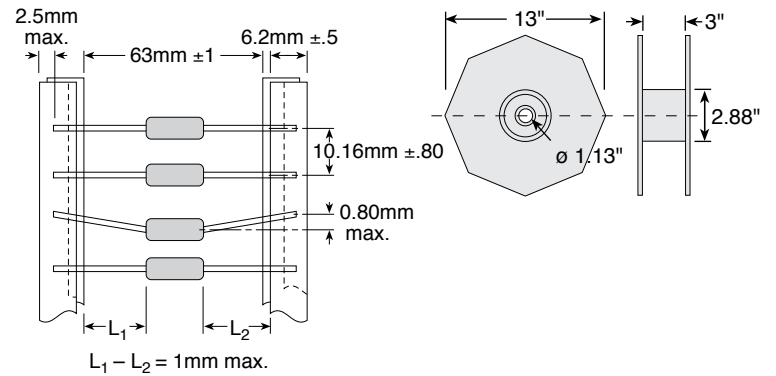
DIMENSIONS

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

