

OC Series

Ceramic Composition 10% Tolerance



The OC 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 OC resistors can often replace carbon composition resistors which can be difficult to source.

FEATURES

- Replaces 1 and 2 watt carbon composition resistors
- Excellent alternative to the Ohmite OX/OY series
- Meets high energy density demands
- High peak power
- 10% Tolerance



SERIES SPECIFICATIONS

Series	Resistance range	Avg Power (w) @ 70°C	Peak Energy (j)	Rated Peak Volt (v)	Weight (g)
OC1	6.0 - 1,760	1.2	140	950	1.0
	1,761 - 146,000	1.0	40	775	1.2
OC2	8.0 - 2,400	1.7	200	1,100	1.2
	2,401 - 200,000	1.0	80	900	1.7
OC3	12 - 5,000	2.5	275	2,500	1.9
	5,001 - 300,000	2.0	140	2,000	2.2

CHARACTERISTICS

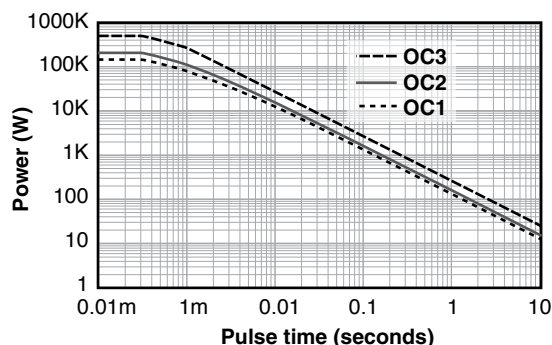
Terminals	Pb-free solder-coated axial		
Coating	Silicone ceramic		
Derating	Linear from 100% @ +70°C to 0% @ +230°C		
Operating Temp. Range	-55 °C to +230°C		
Tolerance	±10% standard		
Power Rating	Based on 70°C free air rating		
Temperature Coefficient	0 to - 800 ppm/°C		
	OC1	OC2	OC3
Max Working Voltage	370V	450V	600V
Dielectric Strength	300V	700V	700V
Max Overload Voltage	740V	900V	1200V
Max Pulse Voltage¹	14KV	20KV	20KV

¹See figures

Test	Condition	Maximum ΔR
Life Test	1000 hours at rated power	±5%
Short Time Overload	2x rated V, 5 sec ON @ 70°C	±(2% +0.05Ω)
Thermal Shock	MIL-STD-202, Method 107	±3%
Moisture Resistance	MIL-STD-202 Method 103	±5%

Pulse Limiting Power

One pulse



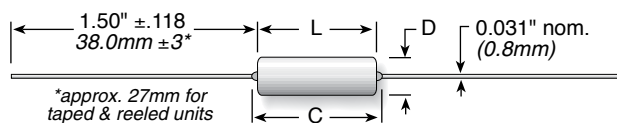
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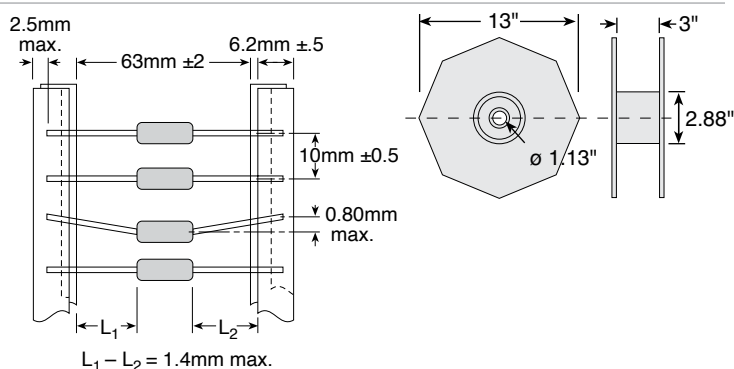
DIMENSIONS

in./mm



Series	Diameter D ±0.039	Length L ±0.039	Length C REF	Qty. per reel
OC1	0.31 / 7.9	0.65 / 16.5	0.75 / 19.0	250
OC2	0.31 / 7.9	0.75 / 19.1	0.89 / 22.6	250
OC3	0.31 / 7.9	1.13 / 28.6	1.26 / 32.1	250

Tape and Reel Dimensions



ORDERING INFORMATION

Standard part numbers for OC Series

Ohmic value	Part No. Prefix Suffix	Size 1 2 3	Ohmic value	Part No. Prefix Suffix	Size 1 2 3	Ohmic value	Part No. Prefix Suffix	Size 1 2 3	Ohmic value	Part No. Prefix Suffix	Size 1 2 3
6.8	--K6R8E	✓	100	--K101E	✓	1500	--K152E	✓	22000	--K223E	✓
8.2	--K8R2E	✓	120	--K121E	✓	1800	--K182E	✓	27000	--K273E	✓
10	--K100E	✓	150	--K151E	✓	2200	--K222E	✓	33000	--K333E	✓
12	--K120E	✓	180	--K181E	✓	2700	--K272E	✓	39000	--K393E	✓
15	--K150E	✓	220	--K221E	✓	3300	--K332E	✓	47000	--K473E	✓
18	--K180E	✓	270	--K271E	✓	3900	--K392E	✓	56000	--K563E	✓
22	--K220E	✓	330	--K331E	✓	4700	--K472E	✓	68000	--K683E	✓
27	--K270E	✓	390	--K391E	✓	5600	--K562E	✓	82000	--K823E	✓
33	--K330E	✓	470	--K471E	✓	6800	--K682E	✓	100000	--K104E	✓
39	--K390E	✓	560	--K561E	✓	8200	--K822E	✓	120000	--K124E	✓
47	--K470E	✓	680	--K681E	✓	10000	--K103E	✓	150000	--K154E	✓
56	--K560E	✓	820	--K821E	✓	12000	--K123E	✓	180000	--K184E	✓
68	--K680E	✓	1000	--K102E	✓	15000	--K153E	✓	220000	--K224E	✓
82	--K820E	✓	1200	--K122E	✓	18000	--K183E	✓	270000	--K274E	✓

RoHS Compliant Packaging
TR = tape & reel

OC2K120E-TR

Series Body size Tolerance Ohm value
K = 10% std. 120 = 12Ω
121 = 120Ω