

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

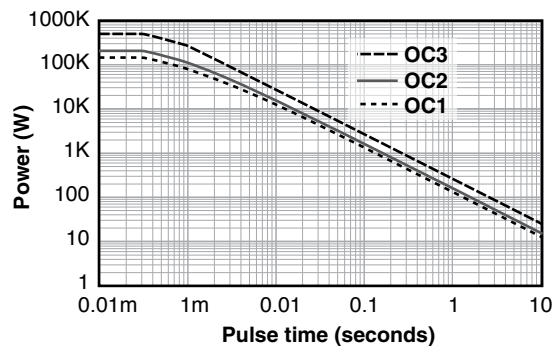
Terminals	Pb-free solder-coated axial		
Coating	Silicone ceramic		
Derating	Linear from 100% @ +70°C to 0% @ +230°C		
Operating Temp. Range	-55 °C to +230°C		
Tolerance	±10% standard		
Power Rating	Based on 70°C free air rating		
Temperature Coefficient	0 to - 800 ppm/°C		
	OC1	OC2	OC3
Max Working Voltage	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



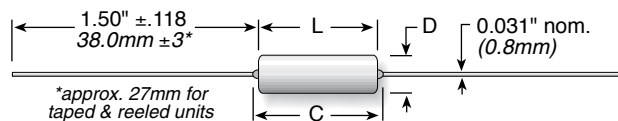
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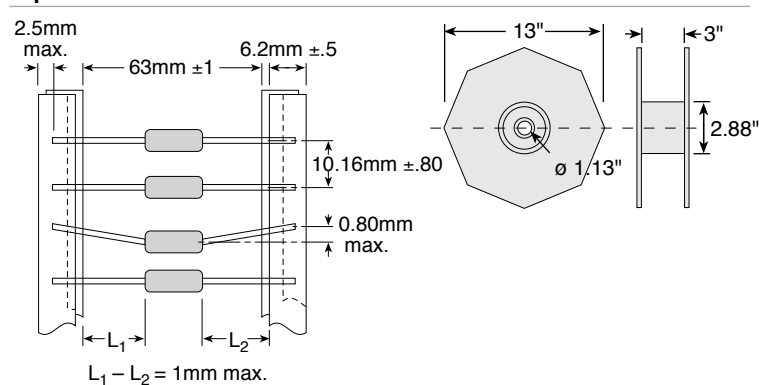
DIMENSIONS

in./mm



Series	Diameter D max.	Length L max.	Length C max.	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: OC, Body size: 2, Tolerance: K=10% std., Ohm value: 120 = 12Ω, 121 = 120Ω