

# OV Series — Automotive Leaded Dual Function Varistors/RFI Suppressors

## Description

The OV Series varistor/suppressor is a dual function device that protects against transient voltages and radio-frequency noise generated within 12V<sub>DC</sub> and 24V<sub>DC</sub> vehicle power systems. This component replaces two components: a low voltage varistor and a capacitor.

The OV Series incorporates a varistor function in automotive applications and a radio-frequency filter operating in the capacitance range from 0.47μF to 1.5μF. These components are designed for protection of all sensitive electronics circuits from both voltage transients and high-frequency noise produced by electromechanical devices such as relays, electric motors, etc.

OV varistor/suppressors are square-shaped components with in-line leads, which require at least 30% less mounting space than the two components they replace.



## Features

- AC operating voltage (Vrms) from 14V to 40V
- DC operating voltage (Vdc) from 16V to 56V
- Power supply voltages (Vdc) 12V and 24V
- Capacitance range (μF) 0.47 to 1.5
- Available with straight or crimped leads
- Capacitor temperature characteristics Z5U/Y5V
- Dimensional and weight savings on PC board
- 2 model sizes available 7.3 x 9.0 and 7.8 x 12mm
- In-line leads
- Protects against voltage transients and suppresses, radio-frequency interference

## General Technical Data

Operating Ambient Temperature	-40°C to +85°C	In accordance with CECC 42 000
Storage temperature Range	-40°C to +125°C	In accordance with CECC 42 000
Isolation Voltage Capability	>1kV	
Threshold Voltage Temperature Coefficient	<-0.05%/°C	
Insulation Resistance	>1Gohm	
Response Time	<25ns	

## How to Order

OV	1	20	K	105	M	Z	122	R																														
SEI Type	Lead style	Vrms	V <sub>N</sub> Tolerance	Capacitance value	Capacitance tolerance	Dielectric material	Surge Current	Packaging																														
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## Standard Packaging Options/ Quantities

Series	Voltage Range (Vrms)	Current code	Packaging options		
			B = Bulk; R = Reel; A = Ammo Pack		
			B	R	A
OV	14 – 40	801	1,500	1,500	1,500
	14 – 40	122	1,500	1,500	1,500

# OV Series — Automotive Leaded Dual Function Varistors/RFI Suppressors

## Device Ratings and Dimensions

Part Number	V <sub>RMS</sub> (volts)	V <sub>DC</sub> (volts)	V <sub>N</sub> (volts)	V <sub>JUMP</sub> (volts)	V <sub>C</sub> (volts)	I <sub>C</sub> (amps)	W <sub>MAX</sub> (joules)	W <sub>LD</sub> (joules)	P <sub>MAX</sub> (watts)	I <sub>P</sub> (amps)	C <sub>TYP</sub> (μF)	D <sub>MAX</sub> (mm)	h <sub>MAX</sub> (mm)	R (mm)	d (mm)	t <sub>MAX</sub> (mm)
OV 14 K 474 MZ 801	14	16	24	24.5	40	5	2.4	6	0.015	800	0.47	7.5	9	5	0.6	5.5
OV 17 K 474 MZ 801	17	20	27	30	44	5	2.8	6	0.015	800	0.47	7.5	9	5	0.6	5.5
OV 14 K 105 MZ 801	14	16	24	24.5	40	5	2.4	6	0.015	800	1.00	7.5	9	5	0.6	5.5
OV 17 K 105 MZ 801	17	20	27	30	44	5	2.8	6	0.015	800	1.00	7.5	9	5	0.6	5.5
OV 14 K 155 MZ 801	14	16	24	24.5	40	5	2.4	6	0.015	800	1.50	7.5	9	5	0.6	5.5
OV 17 K 155 MZ 801	17	20	27	30	44	5	2.8	6	0.015	800	1.50	7.5	9	5	0.6	5.5
OV 20 K 474 MZ 801	20	26	33	26	54	5	3.2	6	0.015	800	0.47	7.5	9	5	0.6	5.5
OV 30 K 474 MZ 801	30	38	47	50	77	5	4.5	6	0.015	800	0.47	7.5	9	5	0.6	5.5
OV 40 K 474 MZ 801	40	56	68	71	110	5	5.0	6	0.015	800	0.47	7.5	9	5	0.6	5.5
OV 20 K 105 MZ 801	20	26	33	26	54	5	3.2	6	0.015	800	1.00	7.5	9	5	0.6	5.5
OV 30 K 105 MZ 801	30	38	47	50	77	5	4.5	6	0.015	800	1.00	7.5	9	5	0.6	5.5
OV 40 K 105 MZ 801	40	56	68	71	110	5	5.0	6	0.015	800	1.00	7.5	9	5	0.6	5.5
OV 20 K 155 MZ 801	20	26	33	26	54	5	3.2	6	0.015	800	1.50	7.5	9	5	0.6	5.5
OV 30 K 155 MZ 801	30	38	47	50	77	5	4.5	6	0.015	800	1.50	7.5	9	5	0.6	5.5
OV 40 K 155 MZ 801	40	56	68	71	110	5	5.0	6	0.015	800	1.50	7.5	9	5	0.6	5.5
OV 20 K 474 MZ 122	20	26	33	26	54	10	7.8	12	0.030	1,200	0.47	8	12	5	0.6	5.5
OV 30 K 474 MZ 122	30	38	47	50	77	10	13.0	12	0.030	1,200	0.47	8	12	5	0.6	5.5
OV 40 K 474 MZ 122	40	56	68	71	110	10	13.3	12	0.030	1,200	0.47	8	12	5	0.6	5.5
OV 20 K 105 MZ 122	20	26	33	26	54	10	7.8	12	0.030	1,200	1.00	8	12	5	0.6	5.5
OV 30 K 105 MZ 122	30	38	47	50	77	10	13.0	12	0.030	1,200	1.00	8	12	5	0.6	5.5
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OV 20 K 155 MZ 122	20	26	33	26	54	10	7.8	12	0.030	1,200	1.50	8	12	5	0.6	5.5
OV 30 K 155 MZ 122	30	38	47	50	77	10	13.0	12	0.030	1,200	1.50	8	12	5	0.6	5.5
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OV 14 K 474 MZ 122	14	16	24	24.5	40	10	5.8	12	0.030	1,200	0.47	8	12	5	0.6	5.5
OV 17 K 474 MZ 122	17	20	27	30	44	10	7.4	12	0.030	1,200	0.47	8	12	5	0.6	5.5
OV 14 K 105 MZ 122	14	16	24	24.5	40	10	5.8	12	0.030	1,200	1.00	8	12	5	0.6	5.5
OV 17 K 105 MZ 122	17	20	27	30	44	10	7.4	12	0.030	1,200	1.00	8	12	5	0.6	5.5
OV 14 K 155 MZ 122	14	16	24	24.5	40	10	5.8	12	0.030	1,200	1.50	8	12	5	0.6	5.5
OV 17 K 155 MZ 122	17	20	27	30	44	10	7.4	12	0.030	1,200	1.50	8	12	5	0.6	5.5