

Series OSX / SSX / SOX

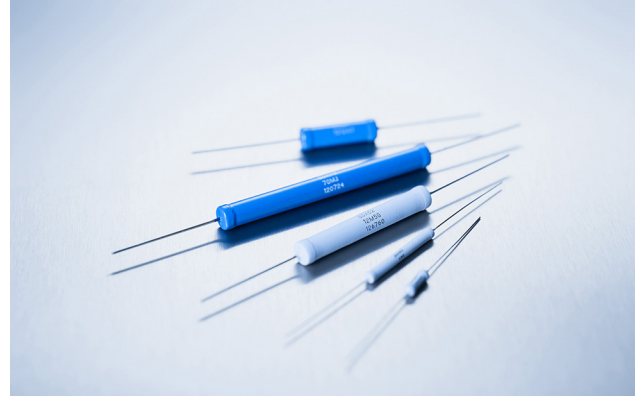
Power- and Precision High-Voltage Resistors TC of ± 100 ppm/ $^{\circ}$ C and wide ohmic range

A Miba Group Company

The OSX/SSX/SOX series meets a general set of requirements. The products are available with a silicone or epoxy coating and feature a wide range of tolerances and temperature coefficients.

Features

- up to 60 kV operating voltage
- Non-Inductive design
- ROHS compliant
- Full encapsulation over the entire resistor length
- All SSX types are available with M4 or 6/32 screw end caps



Technical Specifications

Resistance value	100 Ω \leq 50 G Ω (see model specifications) higher values on special request
Resistance tolerance	± 1 % to ± 10 % standard ± 0.1 % to ± 0.5 % on special request for limited ohmic values*
Temperature coefficient	100 ppm/ $^{\circ}$ C standard (+85 $^{\circ}$ C ref. to +25 $^{\circ}$ C) down to ± 5 ppm/ $^{\circ}$ C on special request for limited ohmic values and tolerances
Max. working voltage	see model specifications
Power Rating	up to 19.40 W (see model specifications)
Dielectric strength	≤ 10 kV DC based on the coating
Overload / overvoltage	5x rated power at 70 $^{\circ}$ C (referenced to specified power at +70 $^{\circ}$ C) with applied voltage not to exceed 1.5x maximum continuous operating voltage for 5 sec. ΔR 0.5 % max.
Load life stability	1,000 hours at rated power at 70 $^{\circ}$ C, ΔR 0.20 % max.
Moisture resistance	MILStd-202, method 106, ΔR 0.4 % max.
Thermal shock	MILStd-202, method 107, Cond. A, ΔR 0.20 % max.
Encapsulation	silicone or epoxy coating standard coatings: silicone or epoxy coating we recommend 2xpolyimide coating for use in oil and potted applications (ask for details)
Other terminals available	screw end caps (6/32", M4, custom), golden leads with diameter 0,8 mm available for SSX / SOX series (ask for details)
Lead material	OFHC copper, tin-plated
Weight	depending on model no. (ask for details)

Different coatings available:

- **Silicone coating** for ambient temperatures up to 225 $^{\circ}$ C
- **Epoxy coating** for excellent humidity protection available under the model no. SOX
- **Polyimide** for excellent protection for use in oil and potted applications but with reduced dielectric strength

How to make a request

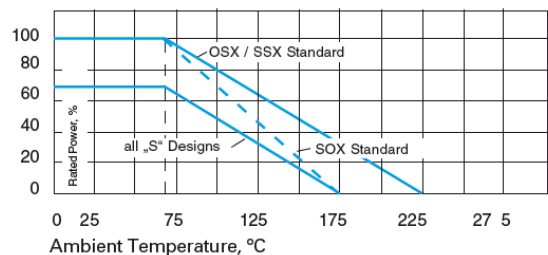
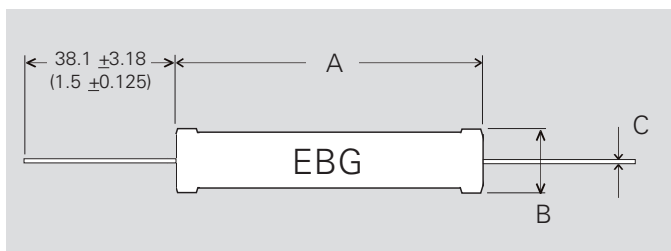
Model no. Ohmic Value_Tolerance_TCR

For example:
OSX-39 100M 0.5% 100ppm or
SSX-39 500K 10% 50ppm

Example for higher working voltage:
SOX-78-S 500M 0.5% 25ppm

* In case of very tight tolerances (± 0.1 % to ± 0.5 %) we suggest not to use the full power rating, but rather the next larger size to achieve ultimate stability (contact us for details)

Dimensions in mm [inches]



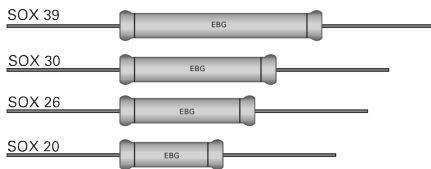
Series OSX / SSX / SOX



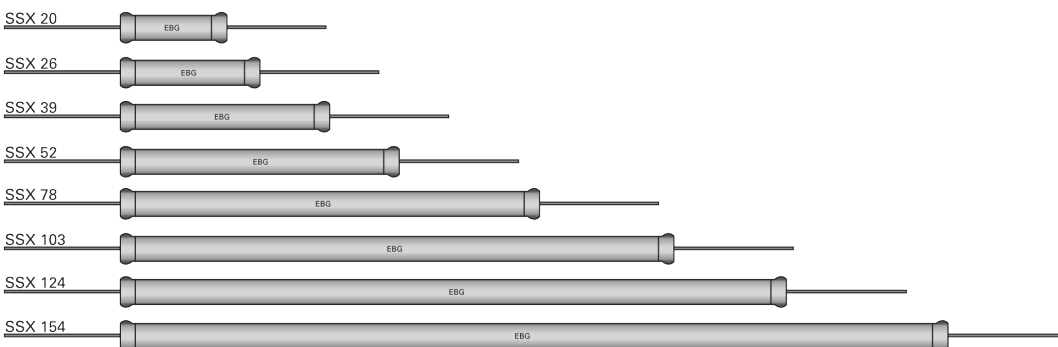
Model Specifications

Model no.	Wattage at 70°C	Max. kV	Max. kV "S" **	Resistance values		Dimensions in millimeters (inches)		
				Min. Ω	Max. Ω	A ±0.50 ±0.02	B ±0.50 ±0.02	C ±0.05 ±0.002
OSX-10	0.80	1.5	1.9	100	1 G	10.80 (0.425)	4.00 (0.157)	0.60 (0.024)
OSX-13	1.00	1.5	1.9	100	5 G	13.40 (0.528)	4.00 (0.157)	0.60 (0.024)
OSX-20	1.50	3.0	3.7	100	10 G	19.70 (0.776)	4.00 (0.157)	0.60 (0.024)
OSX-26	1.95	4.0	5.0	100	10 G	26.00 (1.024)	4.00 (0.157)	0.60 (0.024)
OSX-30	2.30	6.0	7.5	100	10 G	32.40 (1.276)	4.00 (0.157)	0.60 (0.024)
OSX-39	3.10	6.0	7.5	100	10 G	39.40 (1.551)	4.00 (0.157)	0.60 (0.024)
SOX-20	1.20	5.0	6.2	300	10 G	21.30 (0.839)	8.60 (0.339)	1.00 (0.040)
SOX-26	1.60	7.5	9.4	450	10 G	27.50 (1.083)	8.60 (0.339)	1.00 (0.040)
SOX-39	2.50	11.0	13.8	500	10 G	40.20 (1.583)	8.60 (0.339)	1.00 (0.040)
SOX-52	3.40	16.0	20.0	400	10 G	52.50 (2.067)	8.60 (0.339)	1.00 (0.040)
SOX-78	5.00	24.0	30.0	600	10 G	78.70 (3.098)	8.60 (0.339)	1.00 (0.040)
SOX-103	6.50	32.0	40.0	800	10 G	104.10 (4.098)	8.60 (0.339)	1.00 (0.040)
SOX-124	8.20	40.0	50.0	1 M	10 G	124.20 (4.890)	8.60 (0.339)	1.00 (0.040)
SOX-154	10.60	48.0	60.0	1 M	10 G	154.50 (6.083)	8.60 (0.339)	1.00 (0.040)
SSX-20	2.30	5.0	6.2	600	10 G	20.20 (0.795)	8.20 (0.323)	1.00 (0.040)
SSX-26	3.90	7.5	9.4	600	10 G	27.20 (1.071)	8.20 (0.323)	1.00 (0.040)
SSX-32	4.20	8.5	11.0	550	10 G	33.00 (1.299)	8.20 (0.323)	1.00 (0.040)
SSX-39	4.60	11.0	13.8	500	25 G***	39.50 (1.555)	8.20 (0.323)	1.00 (0.040)
SSX-52	7.80	16.0	20.0	400	25 G***	52.00 (2.047)	8.20 (0.323)	1.00 (0.040)
SSX-78	11.70	24.0	30.0	600	50 G***	77.60 (3.055)	8.20 (0.323)	1.00 (0.040)
SSX-103	12.50	32.0	40.0	800	50 G***	103.20 (4.063)	8.20 (0.323)	1.00 (0.040)
SSX-124	15.50	40.0	50.0	1 M	50 G***	123.70 (4.870)	8.20 (0.323)	1.00 (0.040)
SSX-154	19.40	48.0	60.0	1 M	50 G***	153.70 (6.051)	8.20 (0.323)	1.00 (0.040)

SOX series overview



SSX series overview



** Our resistors are designed for operation in air and nonaggressive atmosphere. For special applications like oil, casting, molding, SF6, etc., please contact us.

*** higher ohmic values on special request (ask for details)

The above spec. sheet features our standard products. For further options please contact our local EBG representative or contact us directly.

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