



Series FBX / FEP / FSX

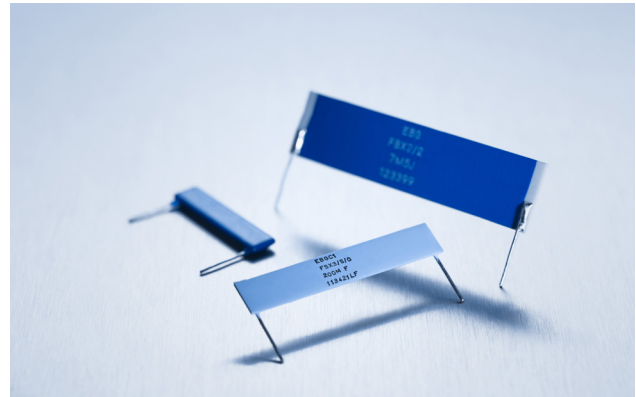
TC of ± 80 ppm/ $^{\circ}\text{C}$ combined with precision tolerances and wide ohmic range

1/2

Low-cost, high-voltage resistors that provide high-density packaging in large volume applications.

Features

- up to 29 kV operating voltage
- Non-Inductive design
- ROHS compliant
- Standard contact lead diameter 0.6 mm. Others available on special request or no lead version for SMD mounting
- On request custom designed version available, max. ceramic size substrates 101.6 mm (4 inch)
- Voltages up to 35% higher than the values listed – “S”-Version



Technical Specifications

Resistance value	200 Ω \leq 2 G Ω higher values on special request
Resistance tolerance	± 0.5 % to ± 10 % down to ± 0.1 % on special request for limited ohmic values
Temperature coefficient	≤ 100 M Ω : ± 80 ppm/ $^{\circ}\text{C}$ standard > 100 M Ω : ± 150 ppm/ $^{\circ}\text{C}$ standard from -5°C to $+105^{\circ}\text{C}$ referenced to $+25^{\circ}\text{C}$; down to 15ppm/ $^{\circ}\text{C}$ on special request for limited ohmic value
Max. operating temperature	FBX/FEP/FSX: -55°C to $+225^{\circ}\text{C}$
Voltage coefficient	see VCR-chart below, for FBX-6/5 ask for details
Weight	depending on model no. (ask for details)

Different coatings available:

- **Series FBX:** with surface silicone print as an inexpensive alternative
- **Series FEP:** surface epoxy print
- **Series FSX:** silicone conformal for high-temperature operations (225°C)

Other coating options such as glass, 2xpolyimide, UV cured, on special request

Model Specifications

Series FBX with Surface Silicone Print

Model no.	Wattage at $+25^{\circ}\text{C}$	Max. continuous operating voltage	Dimensions in millimeters (inches)		
			A ± 0.50 (max.) ± 0.02	B ± 0.50 (max.) ± 0.02	C ± 0.50 ± 0.02
FBX 1/2	0.50	3,000*	12.90 (0.51)	3.40 (0.13)	10.20 (0.40)
FBX 5/5	0.65	4,500*	17.15 (0.68)	3.40 (0.13)	15.24 (0.60)
FBX 6/5	1.20	5,000*	20.00 (0.98)	5.08 (0.20)	17.78 (0.70)
FBX 8/5	1.60	6,000*	25.60 (1.01)	5.30 (0.21)	22.90 (0.90)
FBX 3	3.00	9,000*	38.30 (1.51)	6.60 (0.26)	35.50 (1.40)
FBX 4	4.00	11,500*	51.00 (2.01)	6.60 (0.26)	48.20 (1.90)
FBX 2/2	5.00	16,500*	51.00 (2.01)	12.90 (0.51)	48.20 (1.90)

Series FEP with Surface Epoxy Print

Model no.	Wattage at $+25^{\circ}\text{C}$	Max. continuous operating voltage	Dimensions in millimeters (inches)		
			A ± 0.50 (max.) ± 0.02	B ± 0.50 (max.) ± 0.02	C ± 0.50 ± 0.02
FEP 1/2	0.50	3,000*	12.90 (0.51)	3.40 (0.13)	10.20 (0.40)
FEP 5/5	0.65	4,500*	17.15 (0.68)	3.40 (0.13)	15.24 (0.60)
FEP 6/5	1.20	5,000*	20.00 (0.98)	5.08 (0.20)	17.78 (0.70)
FEP 8/5	1.60	6,000*	25.60 (1.01)	5.30 (0.21)	22.90 (0.90)
FEP 3	3.00	9,000*	38.30 (1.51)	6.60 (0.26)	35.50 (1.40)
FEP 4	4.00	11,500*	51.00 (2.01)	6.60 (0.26)	48.20 (1.90)
FEP 2/2	5.00	16,500*	51.00 (2.01)	12.90 (0.51)	48.20 (1.90)

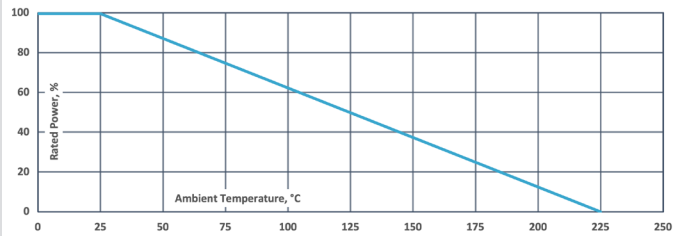
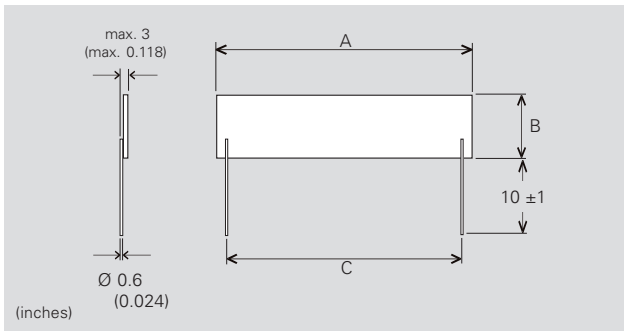
*when used in clean air



Series FBX / FEP / FSX

Series FSX with Conformal Silicone Protection

Model no.	Wattage at +25°C	Max. continuous operating voltage	Dimensions in millimeters (inches)		
			A ±1.00 (max.) ±0.04	B ±1.00 (max.) ±0.04	C ±0.50 ±0.02
FSX 1/2	0.50	4,000	13.60 (0.54)	4.50 (0.18)	10.20 (0.40)
FSX 5/5	0.65	6,000	17.85 (0.70)	4.50 (0.18)	15.24 (0.60)
FSX 6/5	1.20	6,500	20.5 (0.81)	6.00 (0.24)	17.78 (0.70)
FSX 8/5	1.60	8,000	25.90 (1.02)	6.30 (0.25)	22.90 (0.90)
FSX 3	3.00	12,000	38.70 (1.52)	7.50 (0.30)	35.50 (1.40)
FSX 4	4.00	15,000	51.30 (2.02)	7.50 (0.30)	48.20 (1.90)
FSX 2/2	5.00	22,000	51.30 (2.02)	14.20 (0.56)	48.20 (1.90)



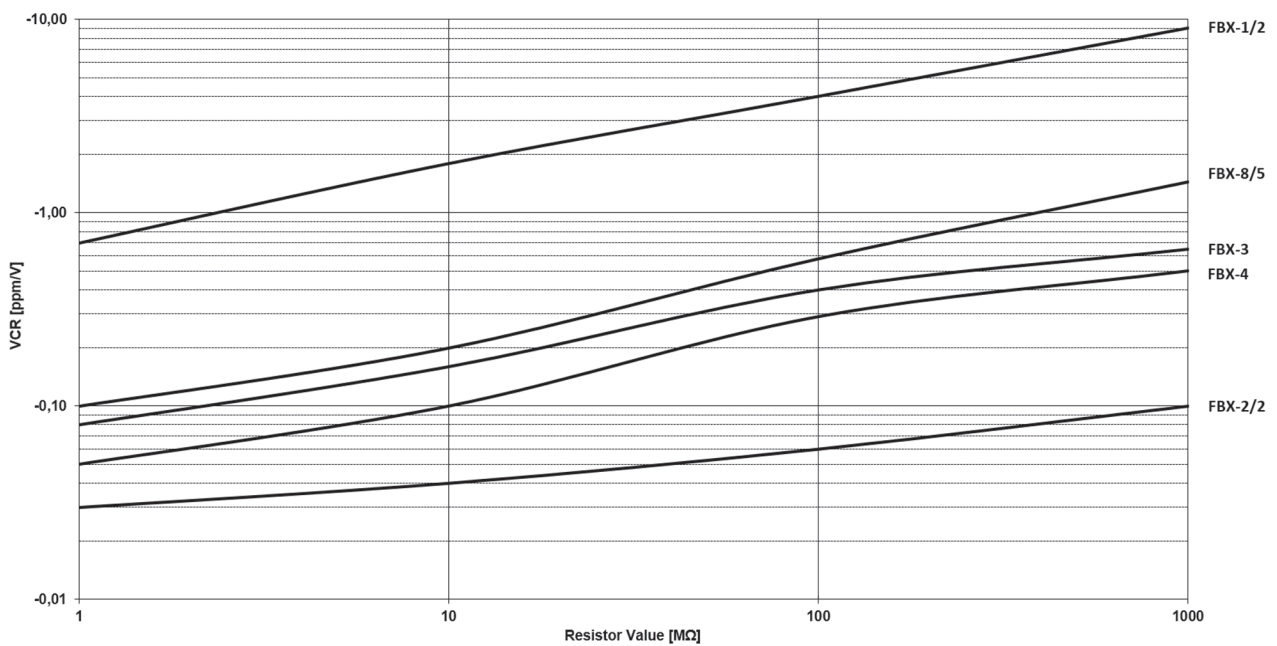
How to make a request

Model no._Ohmic value_Tolerance_TCR

For example:

FBX-4 300K 1% 80ppm or FSX-8/5-S 33M 1%

Typical Voltage Coefficient for FBX series (in ppm per volt)



Example:

FBX-2/2 with 100 MΩ has a typical voltage coefficient of -0.06 ppm/V.

The above spec. sheet features our standard products. For further options please contact your local Miba Resistors representative.

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