

Series SGT

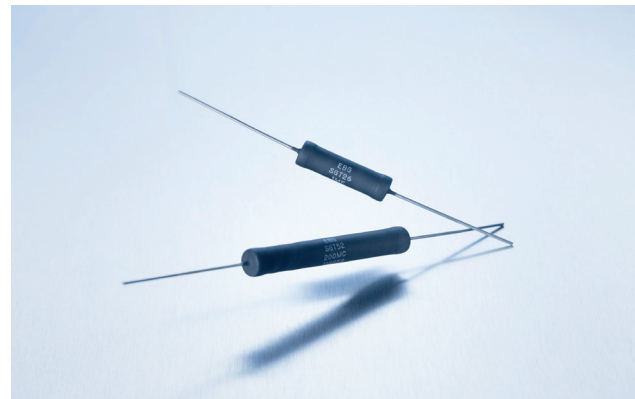
TC of ± 25 ppm/ $^{\circ}$ C, US Patent-No. 4,859,981

A Miba Group Company

The SGT series meet the most stringent requirements regarding temperature coefficient in connection with high stability performance at high operating voltages. The low temperature coefficient minimizes ohmic value change generated through the warm-up due the power dissipation. Typical applications are medical systems like X-ray, nuclear spin tomography as well as power supplies or instruments.

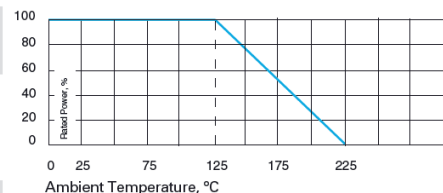
Features

- up to 48 kV operating voltage
- Non-Inductive design
- ROHS compliant
- Voltages up to 60% higher than the values listed "S-Version"



Technical Specifications

Resistance value	100 K Ω \leq 1 G Ω (see model specifications)
Resistance tolerance	± 1 % to ± 10 % standard ± 0.1 % to ± 0.5 % on special request for limited ohmic values**
Temperature coefficient	± 25 ppm/ $^{\circ}$ C referenced to 25 $^{\circ}$ C, ΔR taken at -15 $^{\circ}$ C and +85 $^{\circ}$ C (lower TCR on special request for limited ohmic values)
Max. operating temperature	+ 225 $^{\circ}$ C
Voltage coefficient	-0.2 ppm/V max. as to MIL-Std-202, method 309, 10 kV DC max.
Dielectric strength	1,000 V DC
Insulation resistance	10 G Ω min. at 1,000 V DC
Overload / overvoltage	5x rated power with applied voltage not to exceed 1.5x maximum continuous operating voltage for 5 sec. ΔR 0.20 % max.
Load Life	1,000 hours at rated voltage not exceeding rated power, typical ΔR (2 s) = 0.1 %, $\Delta R=0.25$ % max.
Load life stability	0.25 % per 1,000 hours at +125 $^{\circ}$ C
Moisture resistance	MIL-Std-202, method 106, ΔR 0.4 % max.
Thermal shock	MIL-Std-202, method 107, Cond. B, ΔR 0.20 % max.
Encapsulation	standard coating: silicone conformal we recommend 2xpolyimide coating for use in oil and potted applications (ask for details)
Lead material	OFHC copper, tin-plated
Weight	depending on model no. (ask for details)



How to make a request

Model no._Ohmic Value_Tolerance

For example:
SGT-52 1M 1%

Example for higher voltage or optional coating:
SGT-26-S 45M 10% or
SGT-26 600K 1% 2xpolyimide coating

Model Specifications

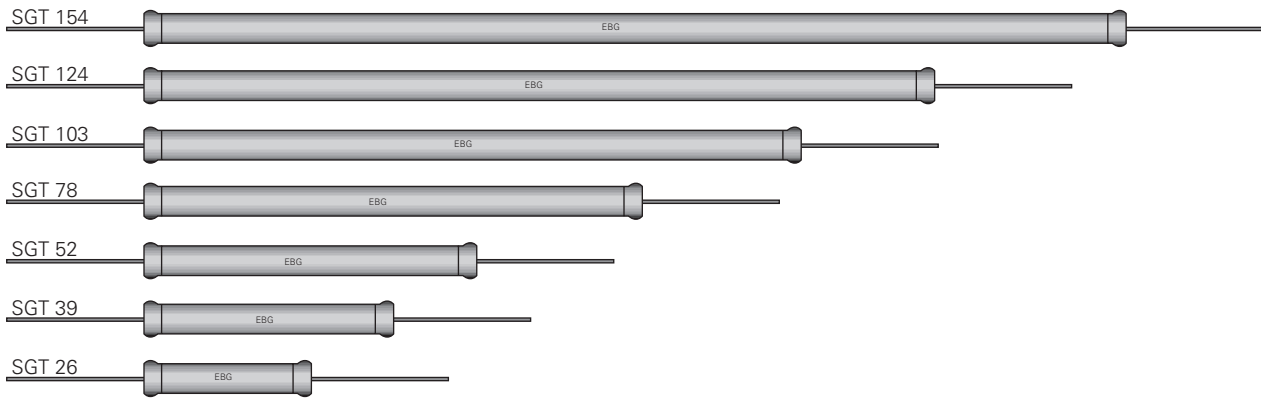
Model no.	Wattage	Max. continuous operating voltage	Resistance values			Dimensions in millimeters (inches)		
			Min. Ω	Min. ("S") Ω	Max. (1% Tol.) Ω	A ± 0.50 ± 0.02	B ± 0.50 ± 0.02	C ± 0.50 ± 0.02
SGT-26	1.0	4,000	100 K	40M	250M	26.9 (1.059)	8.20 (0.323)	1.00 (0.040)
SGT-32	1.25	5,000	120 K	50M	300M	33.00 (1.300)	8.20 (0.323)	1.00 (0.040)
SGT-39	1.5	6,000	150 K	60M	400M	39.50 (1.555)	8.20 (0.323)	1.00 (0.040)
SGT-52	2.0	10,000	200 K	80M	500M	52.10 (2.051)	8.20 (0.323)	1.00 (0.040)
SGT-78	3.0	15,000	300 K	120M	700M	77.70 (3.059)	8.20 (0.323)	1.00 (0.040)
SGT-103	4.0	20,000	400 K	160M	1G	102.90 (4.051)	8.20 (0.323)	1.00 (0.040)
SGT-124	5.0	25,000	500 K	190M	1G	123.70 (4.870)	8.20 (0.323)	1.00 (0.040)
SGT-154	6.0	30,000	600 K	250M	1G	153.70 (6.051)	8.20 (0.323)	1.00 (0.040)

** If you need very tight tolerances (± 0.1 % to ± 0.5 %), we recommend not to use the full power rating but rather to select the next large size to achieve ultimate stability (ask for details)

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Model overview



Dimensions in mm [inches]

