

# Series SGT

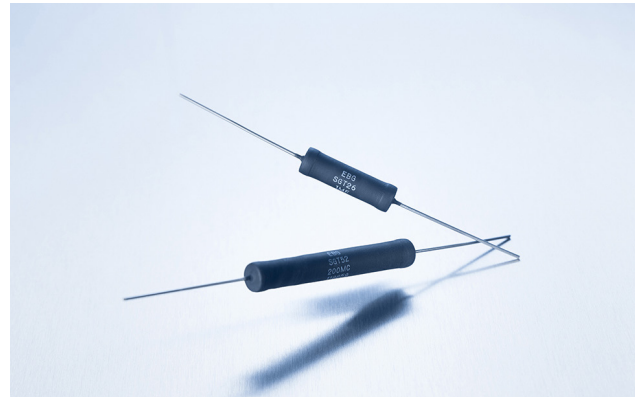
TC of  $\pm 25$  ppm/ $^{\circ}\text{C}$ , US Patent-No. 4,859,981

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.

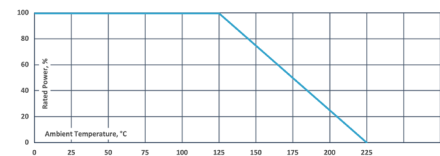
## Features

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



## Technical Specifications

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



## How to make a request

Model no.\_Ohmic Value\_Tolerance\_TCR

For example:

SGT-52 1M 1% 25ppm

**Example for higher voltage or optional coating:**

SGT-26-S 45M 10% 25ppm or

SGT-26 600K 1% 25ppm 2xpolyimide coating

## Model Specifications

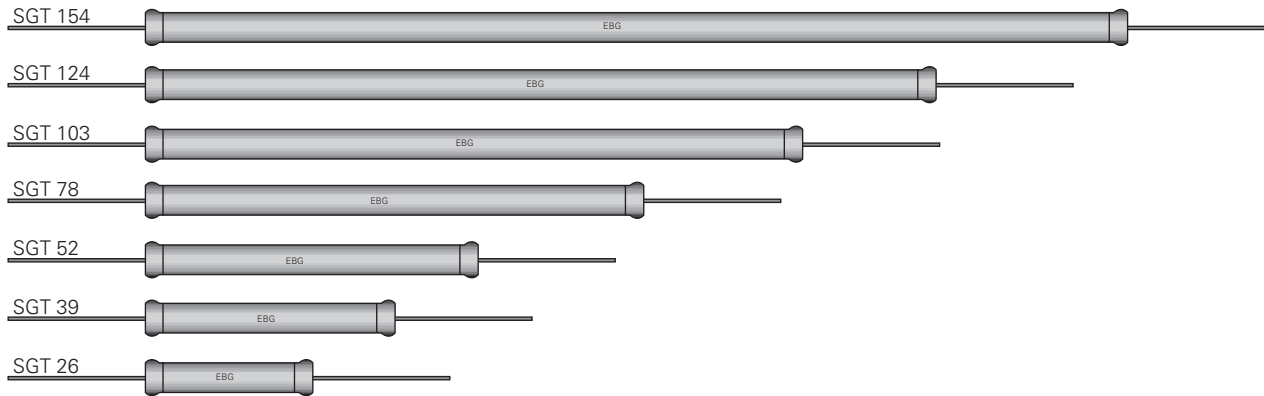
Model no.	Wattage	Max. continuous operating voltage	Resistance values			Dimensions in millimeters (inches)		
			Min. $\Omega$	Min. ("S") $\Omega$	Max. (1% Tol.) $\Omega$	A $\pm 0.50$ $\pm 0.02$	B $\pm 0.50$ $\pm 0.02$	C $\pm 0.05$ $\pm 0.002$
SGT-26	1.0	4,000	100 K	40M	250M	26.9 (1.059)	8.20 (0.323)	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 ( $\pm 0.1$  % to  $\pm 0.5$  %), we recommend not to use the full power rating but rather to select the next large size to achieve ultimate stability (ask for details)

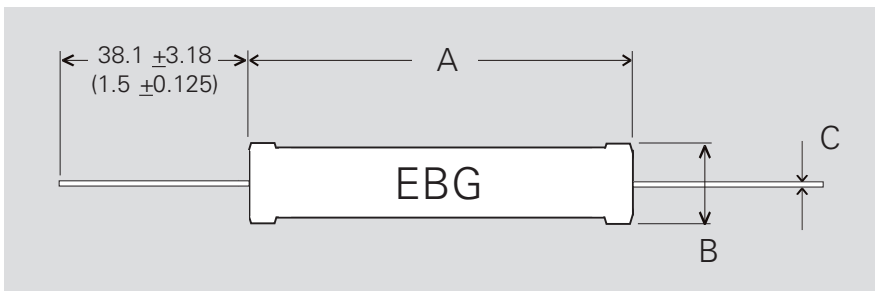
# Series SGT



## Model overview



## Dimensions in mm [inches]



# Disclaimer



A Miba Group Company

The given statements and information herein are recommendations for the use of our products and are based on our experience in combination with applicable technical standards.

They are for guidance only and do not represent any assurance of characteristics or warranty commitments for the products or their suitability for specific applications.

The suitability of the products for the intended use by the user depends on different boundary conditions and influencing factors and is to be assessed exclusively by the user.

**DISCLAIMER:**

NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, IS MADE WITH RESPECT TO THE PRODUCTS, DESIGNS, DATA, INFORMATION DESCRIBED OR ANY INTELLECTUAL PROPERTY CONTAINED THEREIN. ANY WARRANTY OR GUARANTEE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS ALSO EXCLUDED.

The given statements and information herein reflect the current status at the time of publication.

Typing or printing errors cannot be excluded.

This publication shall not be reprinted or reproduced in whole or in part in any form or by any means without the express written permission of EBG.