

## Metal Oxide Resistors, Standard



### FEATURES

- Rugged metal oxide film
- High power dissipation
- High temperature coating
- Used in applications with high endurance demands

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{70^{\circ}\text{C}}$ W	LIMITING ELEMENT VOLTAGE MAX. $V_{\cong}$	TEMPERATURE COEFFICIENT ppm/°C	TOLERANCE %	RESISTANCE RANGE $\Omega$	E-SERIES
SXA0411	0.7	$\sqrt{PxR}$	300	2 5	1R0 - 9R53 R16 - 9R53	48 24
SXA0411	1.0	350	300	2 5	10R - 100K 10R - 100K	48 24
SXA0617	1.5	$\sqrt{PxR}$	300	2 5	1R0 - 9R53 R16 - 9R53	48 24
SXA0617	2.0	500	300	2 5	10R - 100K 10R - 100K	48 24
SXA0922	4.0	500	300	2 5	10R - 68K 5R1 - 68K	48 24
SXA0933	6.0	600	300	2 5	10R - 68K 6R2 - 68K	48 24

- TC 200ppm/°C on request
- Coating: grey
- Marking: SXA0411 and SXA0617 color code (no TC band); SXA0922 and SXA0933 print marked. For further information on marking, please see appropriate catalog or web page

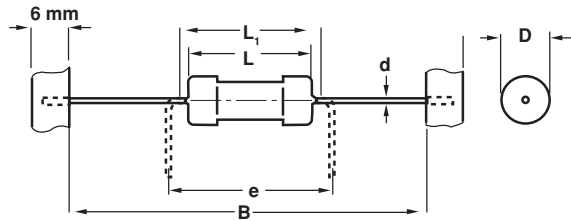
### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	SXA0411	SXA0617	SXA0922	SXA0922
Rated Dissipation at 70°C	W	0.7   1	1.5   2	4	6
Limiting Element Voltage <sup>1)</sup>	$V_{\cong}$	≤ 350	≤ 500	≤ 500	≤ 600
Insulation Voltage (1 min)	$V_{\text{eff}}$	> 600	> 600	> 600	> 600
Thermal Resistance	K/W	≤150	≤110	≤70	≤60
Insulation Resistance	$\Omega$	≥ 10 <sup>11</sup>			
Category Temperature Range	°C	-55 / +175			
Terminal Strength, axial	N	> 60	> 80	> 80	> 80
Failure Rated	10 <sup>-8</sup> /h	< 3			
Weight	g	0.52	1.1	3.2	4.2

<sup>1)</sup> Rated voltage  $\sqrt{PxR}$

### ORDERING INFORMATION

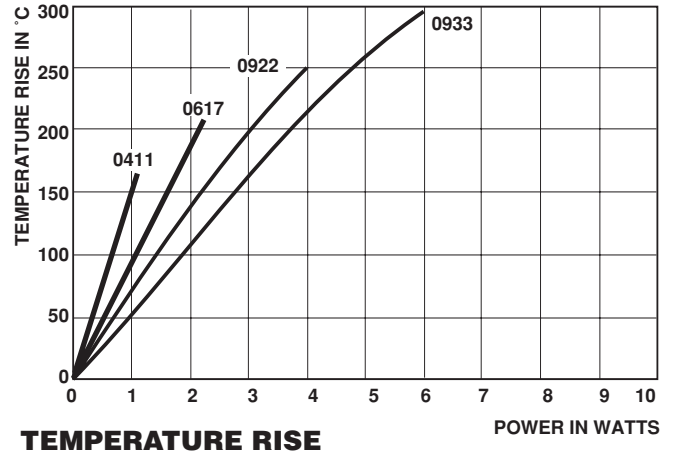
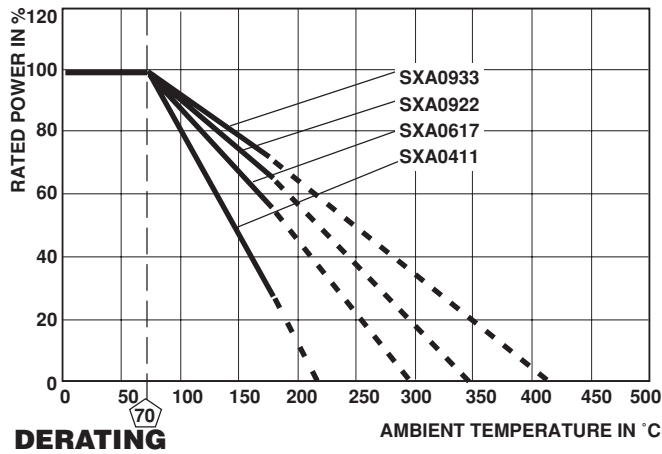
<b>SXA0411</b>	<b>300</b>	<b>18K</b>	<b>5%</b>	<b>A1</b>
MODEL	TC ppm/K	RESISTANCE VALUE $\Omega$	TOLERANCE $\pm$ %	PACKAGING A1 Ammopack - 1000 pcs

**DIMENSIONS**


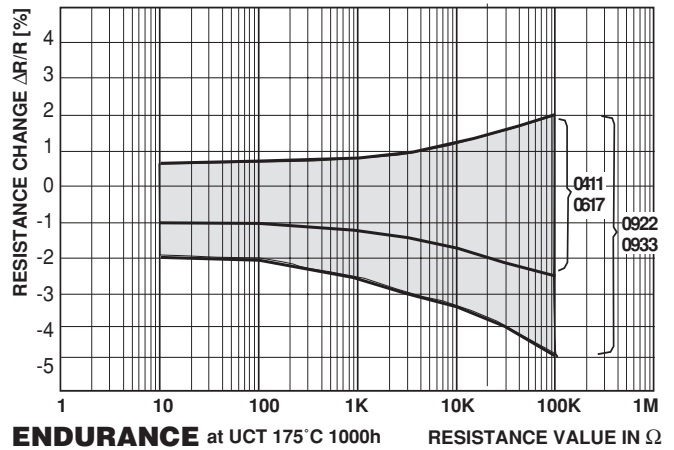
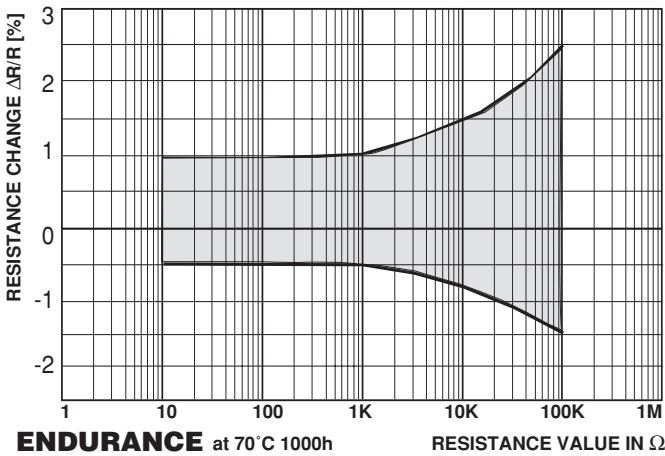
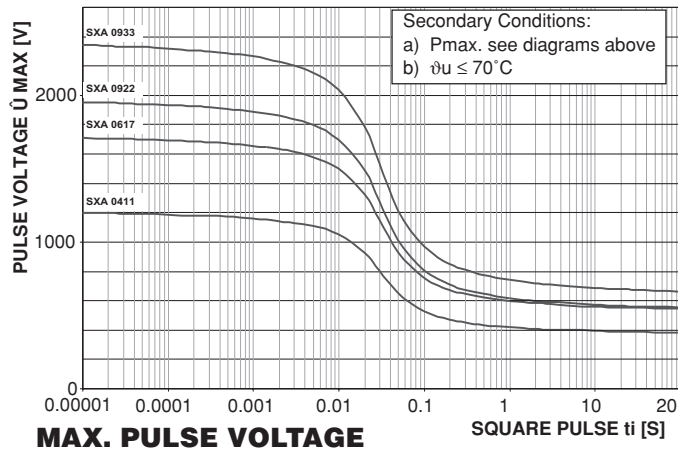
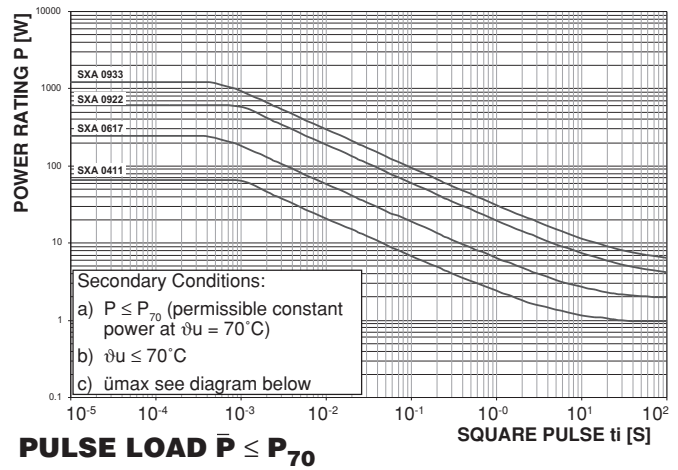
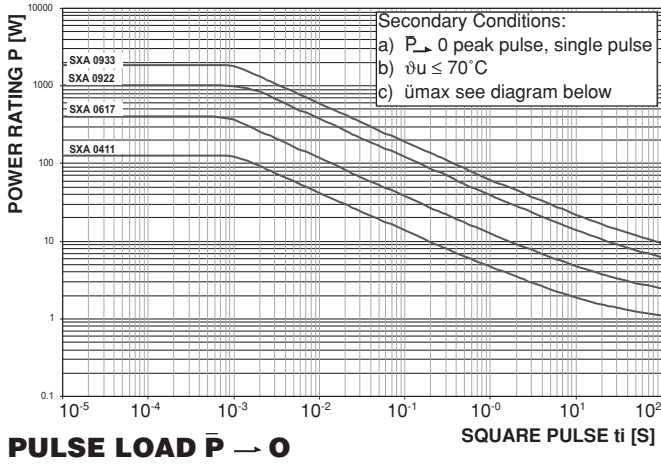
- Taping in acc. with IEC60286-1
- D and L measured in acc. with IEC60294
- d according to IEC60301

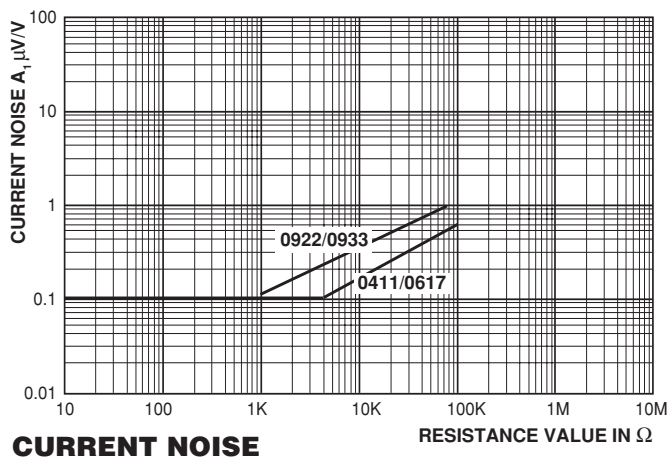
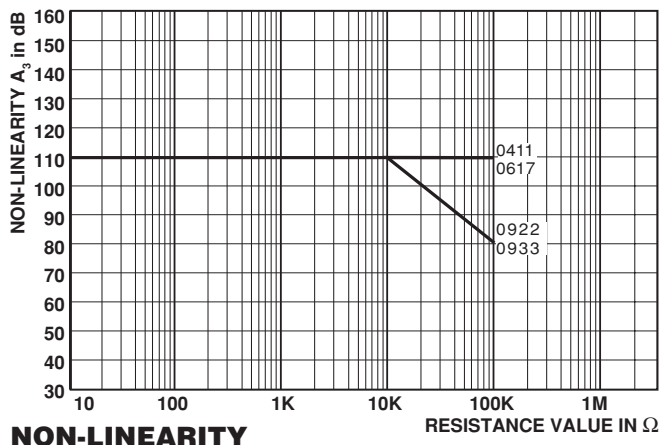
<sup>1)</sup> Also available in 53mm tape

MODEL	DIMENSIONS [in millimeters]					
	D	L	L <sub>1max</sub>	B	d	e
<b>SXA0411</b>	3.8 <sub>-0.4</sub>	11.0 <sub>-0.6</sub>	14.0	73 ± 1 <sup>1)</sup>	0.7	12.5
<b>SXA0617</b>	5.2 <sub>-0.5</sub>	15.8 <sub>-0.8</sub>	19.8	83 ± 1 <sup>1)</sup>	0.8	17.5
<b>SXA0922</b>	8.4 <sub>-0.6</sub>	22.2 <sub>-0.9</sub>	26.2	83 ± 1	0.8	25.0
<b>SXA0933</b>	8.4 <sub>-0.6</sub>	32.2 <sub>-0.9</sub>	36.2	83 ± 1	0.8	35.0



<b>PACKAGING</b>						
MODEL	REEL			BOX		
	PIECES / REEL	CODE	MIN. ORDER QTY PACKAGING UNITS	PIECES / BOX	CODE	MIN. ORDER QTY PACKAGING UNITS
SXA0411	2500	RE	1	1000	A1	1
SXA0617	1000	R1	2	500	AC	2
SXA0922	500	RC	2	250	AB	4
SXA0933	500	RC	2	250	AB	4





PERFORMANCE			
TEST	CONDITIONS OF TEST	REQUIREMENTS <sup>1)</sup>	
		0411/0617	0922/0933
Endurance at 70°C IEC 60115-1 4.25.1	1000 hours at 70°C 1.5 hours "ON", 0.5 hours "OFF" 8000 hours at 70°C 1.5 hours "ON", 0.5 hours "OFF"	≤ ± 2.5% ≤ ± 5.0%	≤ ± 5.0% ≤ ± 10%
Endurance at UCT IEC60115-1 4.25.3	1000 hours at 175°C without load 8000 hours at 175°C without load	≤ ± 2.5% ≤ ± 5.0%	
Overload Test IEC 60115-1 4.13	Short time overload at 2.5 x rated power or twice the limiting voltage for 5 seconds	≤ ± 0.5%	
Thermal Shock IEC 60115-1 4.19 IEC60068-2-14	Rapid change between upper and lower category temperature	≤ ± 0.5%	
Climatic Sequence IEC 60115-1 4.23	Dry heat, damp heat cyclic, cold, low air pressure	≤ ± 1.0%	
Damp Heat Steady State IEC60115-1 4.18 IEC 60068-2-3	56 days at 40°C and 93% relative humidity and U = 0.1 x rated power	≤ ± 1.0%	
Resistance to Soldering Heat IEC 60115-1 4.18 IEC60068-2-20	10 seconds at 260°C solder bath temperature	≤ ± 0.25%	
Robustness of Terminations IEC 60115-1 4.16	Tensile, bending and torsion	≤ ± 0.25%	
Vibration IEC 60115-1 4.22	0.75mm or 10g, 10Hz - 500Hz	≤ ± 0.25%	

<sup>1)</sup> For a resistance range from 10Ω to 100KΩ

APPLICABLE SPECIFICATIONS
<ul style="list-style-type: none"> <li>• CECC40000</li> <li>• EN 140000 / IEC 60115-1</li> </ul>