

Metal Oxide Resistors, Standard



FEATURES

- Rugged metal oxide film
- Lead (Pb)-free solder contacts
- Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes
- Compatible with "Restriction of the use of Hazardous Substances" (RoHS) directive 2002/95/EC (issue 2004)
- High power dissipation
- High temperature coating
- Used in applications with high endurance demands

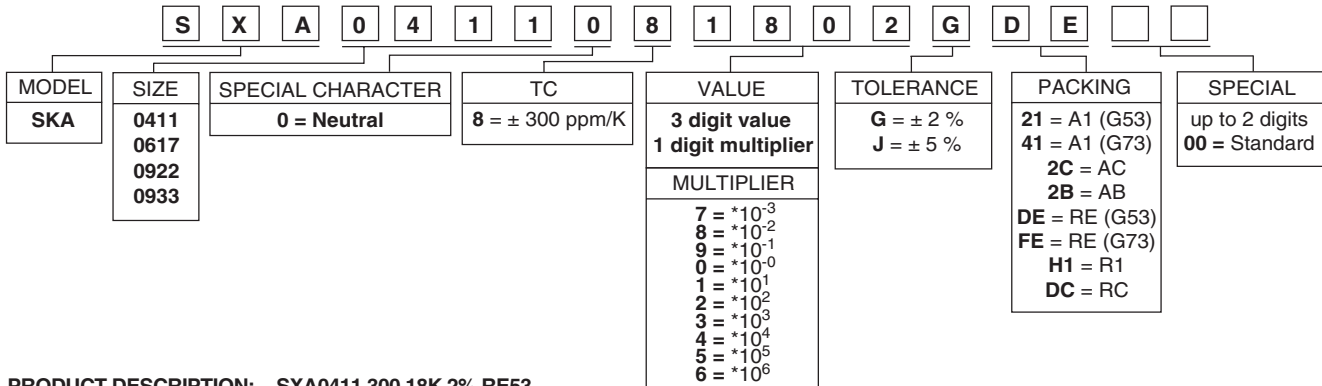


STANDARD ELECTRICAL SPECIFICATIONS						
MODEL	POWER RATING $P_{70^{\circ}\text{C}}$ W	LIMITING ELEMENT VOLTAGE MAX. V_{\cong}	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
SXA0411	0.7	$\sqrt{P \times R}$	300	± 2 ± 5	1R0 - 9R53 R16 - 9R53	48 24
SXA0411	1.0	-	300	± 2 ± 5	10R - 100K 10R - 100K	48 24
SXA0617	1.5	$\sqrt{P \times R}$	300	± 2 ± 5	1R0 - 9R53 R16 - 9R53	48 24
SXA0617	2.0	-	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

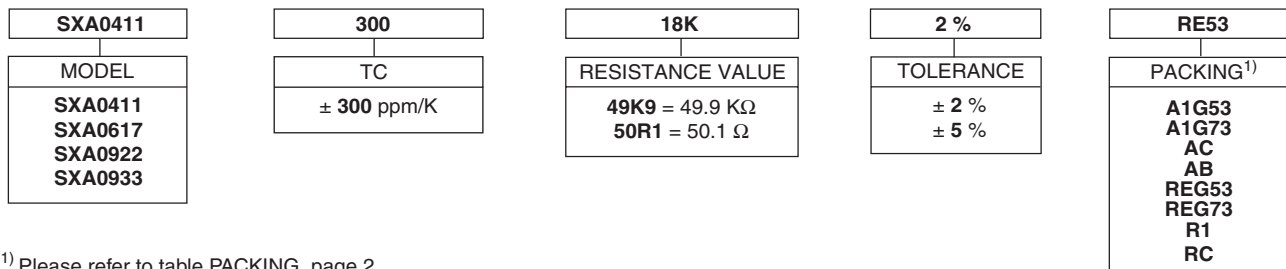
- TC 200ppm/°C on request
 - Coating: grey
 - Marking: SXA0411 and SXA0617 color code (no TC band); SXA0922 and SXA0933 print marked.
- For further information on marking, please see appropriate catalog or web page

PART NUMBER AND PRODUCT DESCRIPTION

PART NUMBER: SXA0411081802GDE

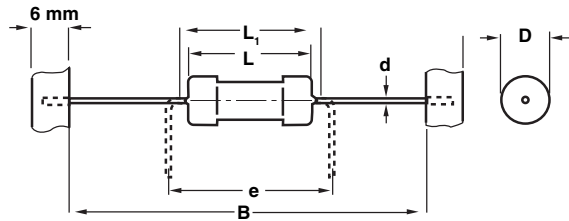


PRODUCT DESCRIPTION: SXA0411 300 18K 2% RE53



¹⁾ Please refer to table PACKING, page 2.

NOTE: Products can be ordered using either the Product Description or the Part Number.

DIMENSIONS


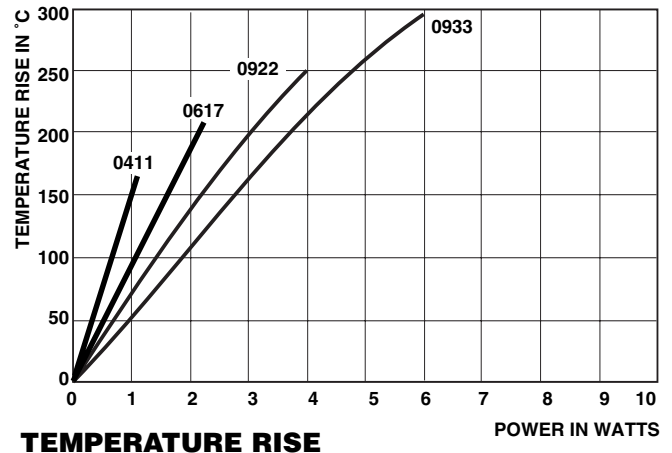
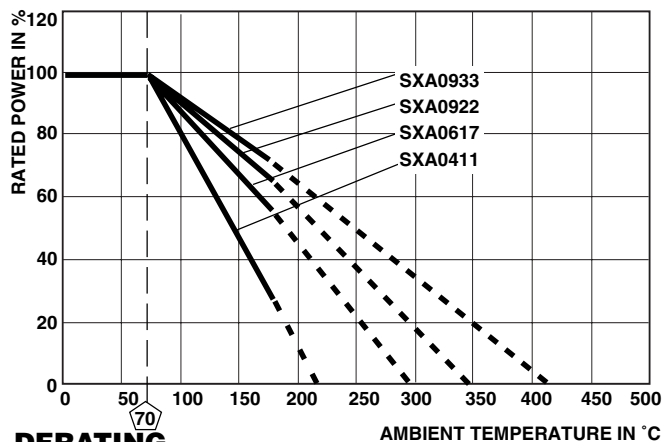
MODEL	DIMENSIONS [in millimeters]					
	D	L	L _{1max}	B	d	e
SXA0411	3.8 ^{-0.4}	11.0 ^{-0.6}	14.0	73 ± 1 ¹⁾	0.7	12.5
SXA0617	5.2 ^{-0.5}	15.8 ^{-0.8}	19.8	83 ± 1 ¹⁾	0.8	17.5
SXA0922	8.4 ^{-0.6}	22.2 ^{-0.9}	26.2	83 ± 1	0.8	25.0
SXA0933	8.4 ^{-0.6}	32.2 ^{-0.9}	36.2	83 ± 1	0.8	35.0

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

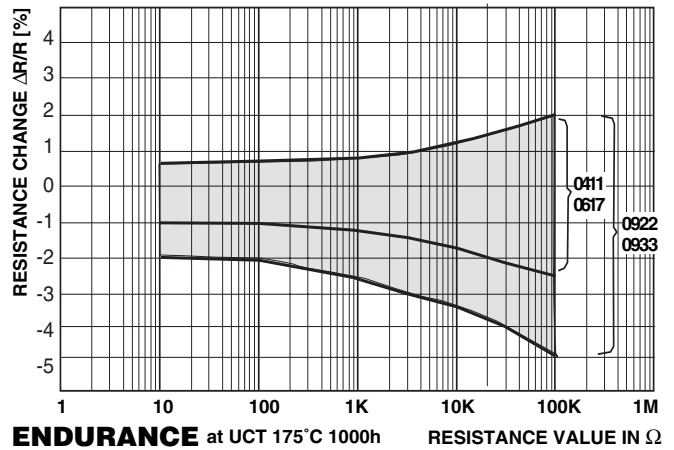
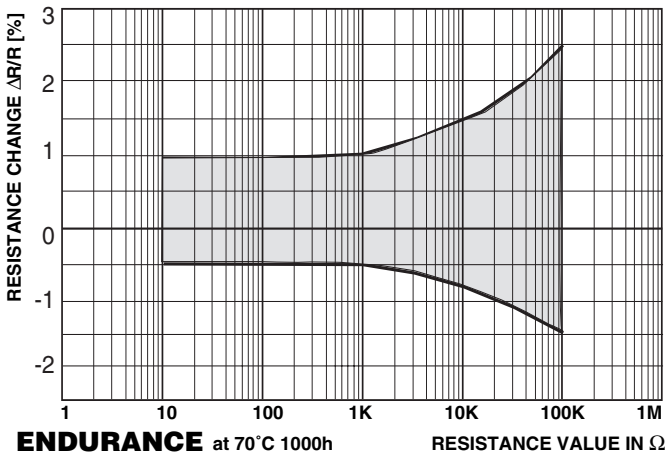
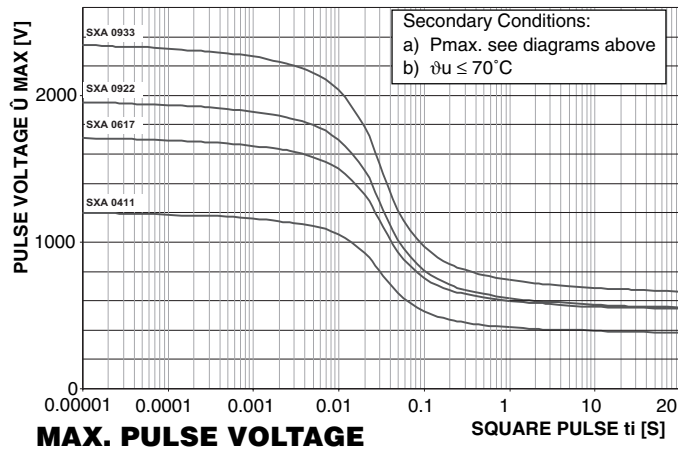
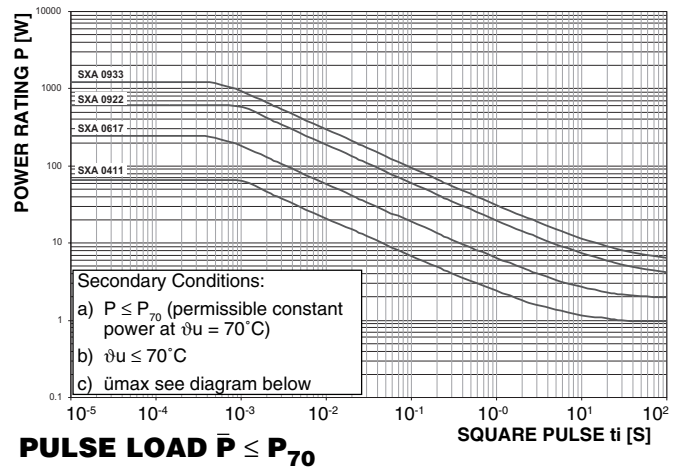
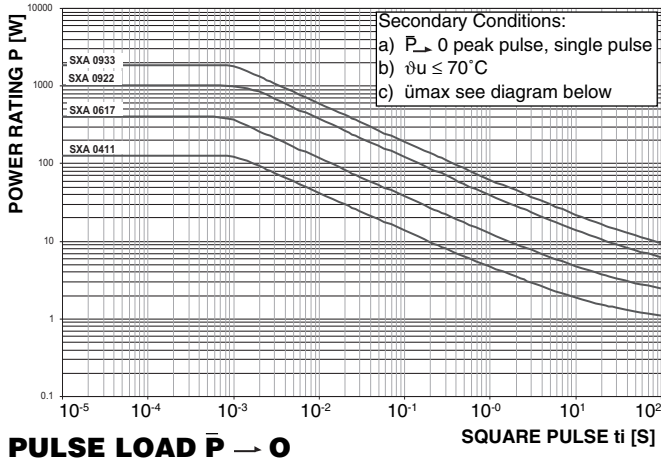
¹⁾ Also available in 53mm tape

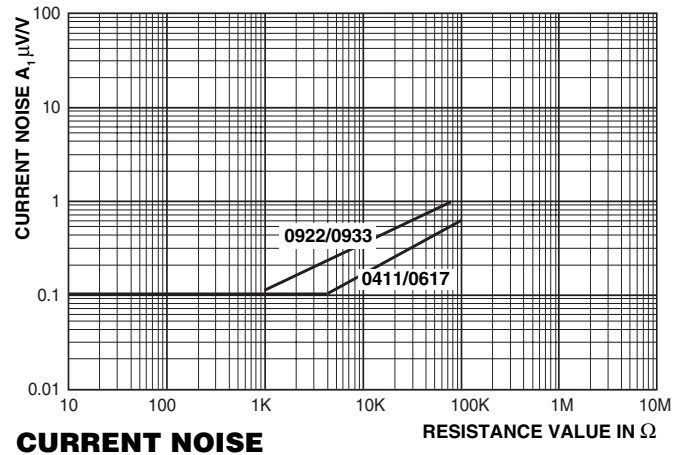
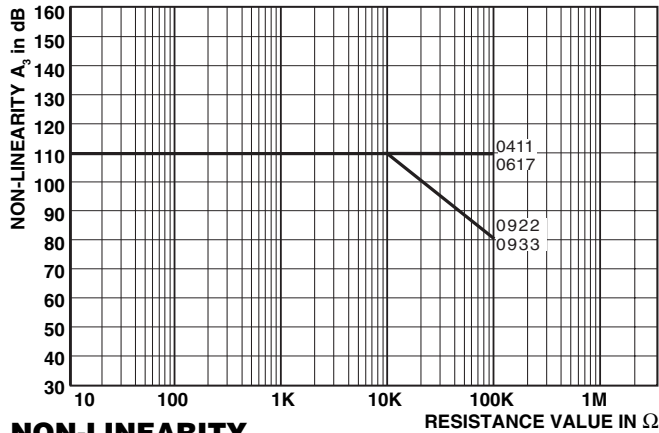
TECHNICAL SPECIFICATIONS						
PARAMETER	UNIT	SXA0411	SXA0617	SXA0922	SXA0933	
Rated Dissipation at 70°C	W	0.7 1	1.5 2	4	6	
Limiting Element Voltage ¹⁾	V _≅	≤ 350	≤ 500	≤ 500	≤ 600	
Insulation Voltage (1 min)	V _{eff}	> 600	> 600	> 600	> 600	
Thermal Resistance	K/W	≤ 150	≤ 110	≤ 70	≤ 60	
Insulation Resistance	Ω	≥ 10 ¹¹				
Category Temperature Range	°C	-55 to +175				
Terminal Strength, axial	N	> 60	> 80	> 80	> 80	
Failure Rated	10 ⁻⁸ /h	< 3				
Weight	g	0.52	1.1	3.2	4.2	

¹⁾ Rated voltage $\sqrt{P \times R}$



PACKING						
MODEL	REEL			BOX		
	PIECES / REEL	CODE	MIN. ORDER QTY PACKING UNITS	PIECES / BOX	CODE	MIN. ORDER QTY PACKING UNITS
SXA0411	2 500	RE	1	1 000	A1	1
SXA0617	1 000	R1	2	500	AC	2
SXA0922	500	RC	2	250	AB	4
SXA0933	500	RC	2	250	AB	4





PERFORMANCE			
TEST	CONDITIONS OF TEST	REQUIREMENTS¹⁾	
		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%	

¹⁾ For a resistance range from 10Ω to 100KΩ

APPLICABLE SPECIFICATIONS

- CECC40000
- EN 140000 / IEC 60115-1