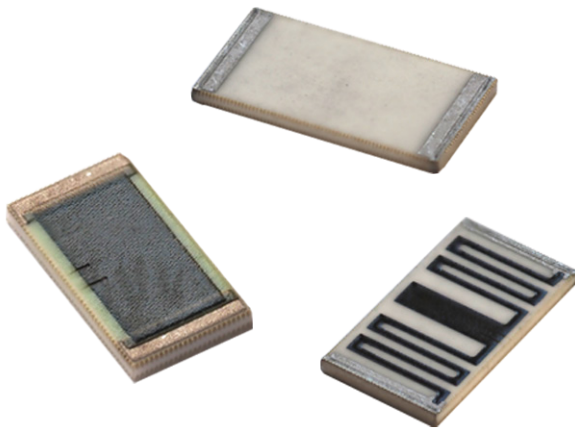




- Surface mount thick film technology
- 10Ω to 1TΩ resistance range
- AgPd terminals for flip chip assembly (face down for conductivity epoxy assembly or soldering - or ...
- Gold terminals (0402, 0603, 0805) for wire bonding (US/TC; face up) as well as flip chip (face down; for conductive epoxy assembly)
- Working voltage up to 6kV
- 200°C High temperature available in 'SZXB Series;
- No wrap around
- Bottom fully insulated with 1206 available and larger case sizes
- Non magnetic



Technical Data		Table 1						
Size		0402	0603	0805	1206	2010	2512	4020
Power rating P ₇₀ (W) (P ₁₅₅ = 0W)		0.05W	0.1W	0.125W	0.25W	0.75W ²	1W ²	2W ²
Working voltage U ₋₁ , U _{eff} (V) Standard (trimmed) U (untrimmed, Tol. ≥5%)		30V 60V	75V 150V	100V 200V	200V 400/1.5kV ⁰	1.5kV 2.5kV ⁰	1.5kV 3.5kV ⁰	4kV 6kV ⁰
Resistance / Tolerance % / Temperature Coefficient (TCR) ppm/°C ³ / Voltage Coefficient (VCR) ppm/V ⁴ (Lower resistance tolerances, TCR & VCR on request & by agreement)								
10R - <100R	± % ppm/°C	5, 10, 20 100	5, 10, 20 50, 100	5, 10, 20 50, 100	2, 5, 10, 20 50, 100	5, 10, 20 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100
100R - <1M	± % ppm/°C	2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100
>1M - 10M	± % ppm/°C	2, 5, 10, 20 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100	1, 2, 5, 10 50, 100
>10M - 100M	± % ppm/°C ppm/V	5, 10, 20 100, 250 500	1, 2, 5, 10, 20 50, 100 500	1, 2, 5, 10, 20 50, 100 500	0.5, 1, 2, 5, 10, 20 50, 100 250	0.5, 1, 2, 5, 10, 20 50, 100 50	0.5, 1, 2, 5, 10, 20 50, 100 25	0.5, 1, 2, 5, 10, 20 50, 100 10
>100M - 1G	± % ppm/°C ppm/V	5, 10, 20, 30 500 1000	2, 5, 10, 20 250, 500 500	2, 5, 10, 20 250, 500 500	2, 5, 10, 20 100, 500 250	1, 2, 5, 10, 20 50, 100 100	1, 2, 5, 10, 20 50, 100 50	0.5, 1, 2, 5, 10, 20 50, 100 25
>1G - 10G	± % ppm/°C ppm/V	10, 20, 30 2000 2000	5, 10, 20, 30 500, 1000 1000	5, 10, 20 500, 1000 1000	5, 10, 20 250, 500 500	2, 5, 10, 20 100, 250 250	2, 5, 10, 20 100, 250 100	2, 5, 10, 20 50, 100 25
>10G - 100G	± % ppm/°C ppm/V	10, 20, 30 2000, 3000 5000	10, 20, 30 2000, 3000 3000	10, 20, 30 2000, 3000 3000	5, 10, 20 500, 1000 1000	5, 10, 20, 30 250, 500 500	5, 10, 20, 30 250, 500 250	5, 10, 20, 30 100, 250 100
>100G - 1T	± % ppm/°C ppm/V	On request	On request	10, 20, 30 3000 5000	10, 20, 30 2000 2000	5, 10, 20, 30 500, 1000 1000	5, 10, 20, 30 500, 1000 500	5, 10, 20, 30 250, 500 250
⁰) With passivation								
¹) Continuous operating voltage (U ₋ , U _{eff}): V ≤ √(P*R) or max. working voltage (the lower value)								
²) At continuous power dissipation the dimensions of solder-pads must secure sufficient heat removal.								
³) Temperature coefficient TCR: in ppm/K +25°C to +125°C; TCR lower than standard TCR (highest value) >100G: +25°C to +85°C								
⁴) Voltage coefficient VCR: Typical values, all negative, not for all TCR values available								

Technical Data - General	
Operating temperature range	-55°C to +155°C
Climatic category acc. to EN 60068-1	55, 155, 56
Protection of the resistor element	Glass passivation (sizes 1206 to 4020)
Solderability acc. to EN 60068-2-58 ⁵	250°C, 3s
Max. soldering temperature acc. to EN 60068-2-58	260°C, 10s (maximum 2 cycles)
Extended temperature range up to 200°C possible - Series SZXB	

Technical Data - General

Long term stability	< 10M	< 10M - 1G	1G - 10G	≥10G
Storage 125°C/1000h	< 0.5%	< 1%	< 2%	< 5%
Max.voltage / 1000h	< 0.5%	< 0.5%	< 1%	< 2%
Short term overload	< 0.25%	-	-	-

5) Up to 6 months after shipment (air, 30°C/60%rH) or up to 12 months at storage in nitrogen or in evacuated dry packs.
Other data according to EN 140401-802 (CECC 40401-802).

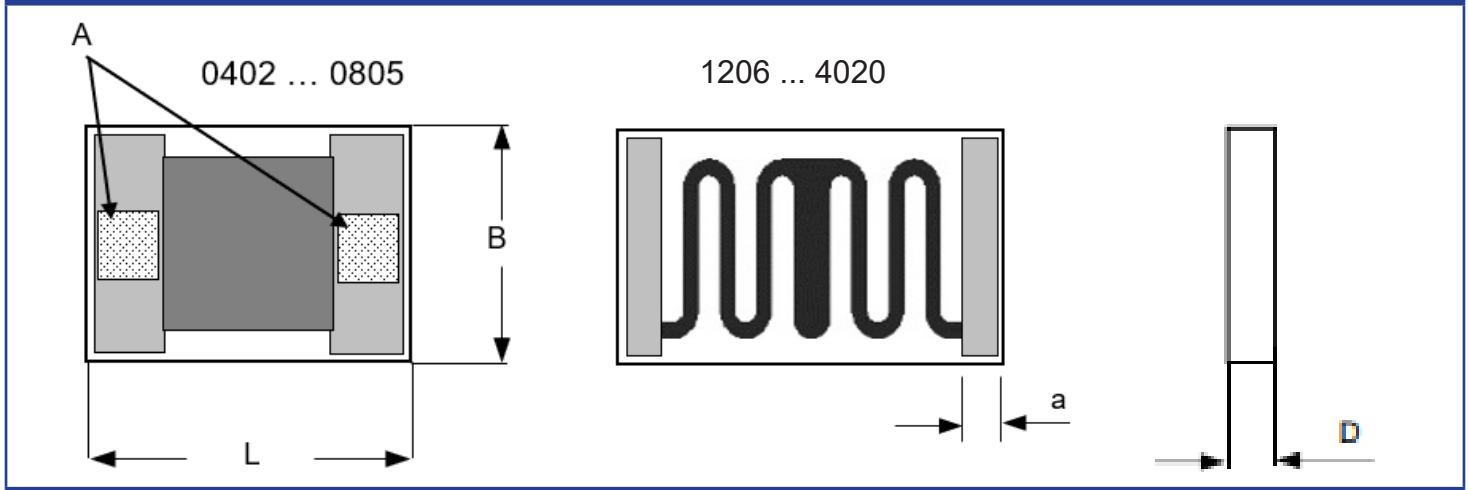
Dimensions (mm)

Table 2

Size	L (Length)	B (Width)	D (Thickness)	Bondpad A min. or a
0402	0.95 +0.10/-0.05	0.48 +0.10/-0.05	0.28 +0.1/-0.05	0.15 x 0.15
0603	1.5 +0.15/-0.05	0.80 +0.15/-0.05	0.40 +0.15/-0.05	0.20 x 0.20
0805	2.00 +0.15/-0.05	1.25 +0.15/-0.05	0.40 +0.15/-0.05	0.25 x 0.40
1206	3.20 +0.15/-0.05	1.50 +0.2/-0.05	0.40 +0.15/-0.05	0.30 ±0.2
2010	5.10 +0.15/-0.05	2.50 +0.2/-0.05	0.65 +0.15/-0.05	0.60 ±0.2
2512	6.30 +0.15/-0.05	3.50 +0.2/-0.05	0.65 +0.15/-0.05	0.60 ±0.2
4020	10.20 +0.20/-0.05	5.10 +0.2/-0.05	0.65 +0.15/-0.05	0.90 ±0.2

Dimensions

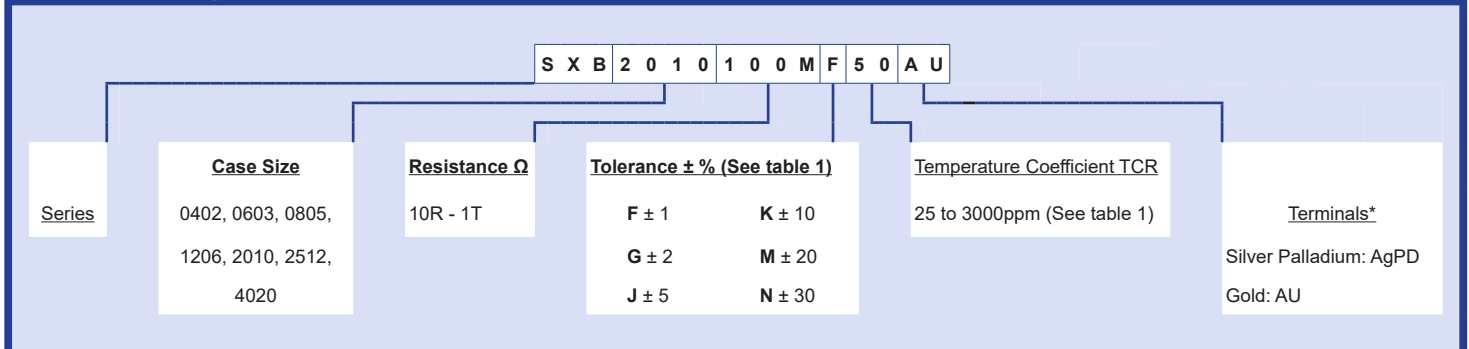
Fig. 1



Packaging

Bulk in plastic bags	Contact Durakool for minimum order quantities
Waffle pack / gel tray (JEDEC 2")	Contact Durakool for minimum order quantities
Embossed carrier tape acc. to IEC 60286-3	Contact Durakool for minimum order quantities
Reel diameter	180 or 330mm
Tape Orientation	Standard - AgPd termination, face down flip chip assembly. Upon request - Au gold terminations, face up chip for wire bonding.

Example Ordering Code



NB: Standard TCR will be the highest value in the table unless otherwise requested. Measuring voltage will be 10V. Other voltages are available - specific requirements must be requested.