



TEMEX-CERAMICS

Safety Capacitors

TEMEX CERAMICS reserves the right to modify herein specifications and information at any time when necessary to provide optimum performance and cost.

SAFETY CAPACITORS

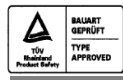
I. General description

These safety multilayer ceramic capacitors are specifically designed to use in modem, facsimile, telephone and other electronic equipments. To cover the great majority of the demands, several dielectrics are used in Class I and Class II.

All our safety capacitors are RoHS compliant.

II Related standard

Certification N°. TUV R50180303

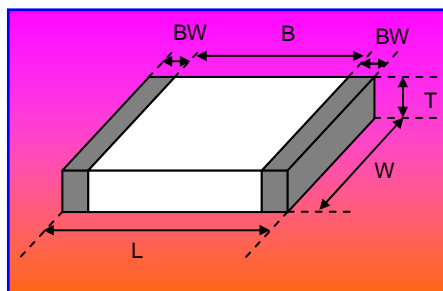


Specifications	Comments
EN132400 : 1994 A2: 1998 +A3: 1998 +A4: 2001	Meets The Electrical Requirements and certification for Equipment requiring Class X1/Y2 and X2/Y3 devices.
IEC 60950 : 2000	Component Certified for Equipment requiring IEC 60950 compliance
IEC 60384-14: 1993 A1: 1995	Component Certified for Equipment requiring IEC-60384-14 compliance
UL 60950 : 2002 Third Edition	TNV/SELV Isolation Capacitors Certified To UL 60950

III Dimensions

All dimensions in mm.

Sizes	L	W	T (max)	B (min)	BW (min)
R29 = 1808	4.60±0.3	2.00±0.2	2.20	2.5	0.2
S43 = 1812	4.60±0.3	3.20±0.3	2.60	2.5	0.2
S45 = 2208	5.70±0.4	2.00±0.2	2.20	4.0	0.3
R30 = 2211	5.70±0.4	2.80±0.3	3.00	4.0	0.3
S47 = 2220	5.70±0.4	5.00±0.4	3.00	4.0	0.3



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VI Dielectric characteristics

Designation	NP0	X7R
Temex Ceramics Series	N	X
EIA Class	Class I	Class II
Temperature range	-55°C to +125°C	-55°C to +125°C
Temperature coefficient	0 ± 30ppm/°C	NA
Maximum $\Delta C/C$ over Temperature range without voltage applied	NA	± 15%
Q factor	C > 30pF => Q ≥ 1000 C ≤ 30pF => Q ≥ 400 + 20 x C (pF)	NA
Dissipation factor	NA	2.5% max
Insulation resistance	10GΩ	10GΩ
Aging	None	≤ 2.5% (per decade hour)

VII Packaging

Tape and reel

Sizes	Thickness (mm)	Plastic Tape (parts/reel)
R29 = 1808	T ≤ 1.25 T > 1.25	3000 2000
S43 = 1812	T ≤ 2.20 T > 2.20	1000 700
S45 = 2208	T ≤ 2.20	1000
R30 = 2211	T ≤ 2.20 T > 2.20	1000 700
S47 = 2220	T ≤ 2.20 T > 2.20	1000 700

Diameter of the reels: 180mm.

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VIII How to order

502	R29	N	101	J	S	E	-SC
Class	Family	Dielectric	Capacitance	Tolerance	Termination	Packaging	Safety caps
302: X2/Y3 502: X1/Y2 602: X1/Y2 for S45N, R30N, S47N	R29 (1808) S43 (1812) S45 (2208) R30 (2211) S47 (2220)	N = NP0 X = X7R	1st two digits are significant; third digit denotes number of zeros Exemples: 101=100pF 472= 4.7nF	<u>Class1 diel.</u> J (±5%) <u>Class2 diel.</u> K (±10%) M (±20%)	S (Nickel barrier covered by 100% Matte tin plating)	E (tape & reel)	