

Standard Capacitors

Copper Barrier Terminations (63V and 100V)

non magnetic

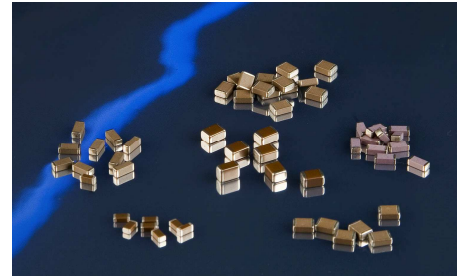
DESCRIPTION:

RoHS compliant

Case sizes: 0603 to 1210

Rated voltage: 100V (NP0) and 63V (X7R)

Copper Barrier Terminations



I. Capacitance range – NP0 dielectric

		N dielectric (NP0)			
Cr Code	Cr	R14 (0603)	R15 (0805)	R18 (1206)	S41 (1210)
		100V	100V	100V	100V
100	10 pF				
150	15 pF				
220	22 pF				
330	33 pF				
470	47 pF				
680	68 pF				
101	100 pF				
151	150 pF				
181	180 pF				
221	220 pF				
331	330 pF				
471	470 pF				
681	680 pF				
821	820 pF				
102	1.0 nF				
152	1.5 nF				
222	2.2 nF				
332	3.3 nF				
472	4.7 nF				
682	6.8 nF				
103	10 nF				
153	15 nF				
223	22 nF				
333	33 nF				
473	47 nF				
683	68 nF				

Note: some capacitance values in these tables may not be proposed for small quantities. Please, contact us for confirmation.

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II. Capacitance range – X7R dielectric

		X dielectric (X7R)			
Cr Code	Cr	R14 (0603)	R15 (0805)	R18 (1206)	S41 (1210)
		63V	63V	63V	63V
101	100 pF				
151	150 pF				
221	220 pF				
331	330 pF				
471	470 pF				
681	680 pF				
102	1.0 nF				
152	1.5 nF				
222	2.2 nF				
332	3.3 nF				
472	4.7 nF				
682	6.8 nF				
821	8.2 nF				
103	10 nF				
153	15 nF				
223	22 nF				
333	33 nF				
473	47 nF				
683	68 nF				
823	82 nF				
104	100 nF				
154	150 nF				
224	220 nF				
334	330 nF				
474	470 nF				
684	680 nF				

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III. Dielectrics

Designation	NP0	X7R
CECC Class	1B/CG	2R1
Temex Ceramics Dielectric Code	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 ΔC/C over Temperature range without voltage applied	NA	± 15%
Voltage proof	250% rated voltage	250% rated voltage
Insulation resistance	100GΩ or 1000ΩF *	100GΩ or 1000ΩF *
Aging	None	≤ 2.5% (per decade hour)

Note: NA = non applicable
 (*): whichever is the less

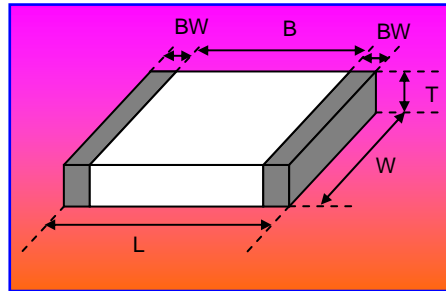
IV. Terminations

Designation	Copper Barrier termination
Termination	100% tinned Copper barrier over silver material
Magnetism status	Non magnetic

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V. Dimensions

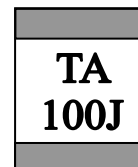


Sizes	L	W	T (max)	B (min)	BW (min)
R14 (0603)	1.60±0.30	0.80±0.20	0.95	0.4	0.15
R15 (0805)	2.00±0.30	1.25±0.30	1.30	0.5	0.13
R18 (1206)	3.20±0.30	1.60±0.30	1.60	1.4	0.25
S41 (1210)	3.20±0.30	2.50±0.30	1.80	1.4	0.25

Note: all dimensions in mm

VI. Laser Marking

Available only on the NP0 dielectric, the laser marking is optional. The 'TA' logo, the capacitance and the tolerance codes are marked as shown.



VII. Packaging

Tape and reel

Sizes	Parts / reel (*)
R14 (0603)	3000 / 4000
R15 (0805)	3000
R18 (1206)	3000
S41 (1210)	1000-2000-3000

* Note: the quantity of parts in a reel depends upon their thicknesses. Please, consult us for more accurate data. Diameter of the reel: 180mm.

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VIII. How to order

101	R18	N	102	K	C	L	E
Rated Voltage	Family	Dielectric	Capacitance	Tolerance	Termination	Marking (optional) Only for NP0	Packaging
1st two digits are significant; third digit denotes number of zeros Exemples: 630=63V 101=100V	R14 R15 R18 S41	N = NP0 X = X7R	C ≥ 10pF 1st two digits are significant; third digit denotes number of zeros Exemples: 101=100pF 472= 4.7nF 683 = 68nF 104 = 0.1μF	<u>Class I diel.</u> F (±1%) G (±2%) J (±5%) <u>Class II diel.</u> K (±10%) M (±20%)	C (Copper barrier termination)	L (Laser Marking) Blank (No marking)	E (tape & reel) Blank (Bulk)

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