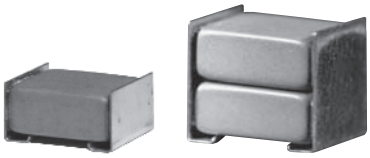
NTJ Series

RoHS2 Compliant AEC-Q200



◆FEATURES

1. Small size and large capacitance, high ripple current.
2. Temperature cycle: 1000 cycles.
3. X7R temperature characteristics.
4. Excellent noise absorption.
5. For reflow soldering use.
6. Suitable for aluminum substrate.
7. Automotive grade (AEC-Q200)

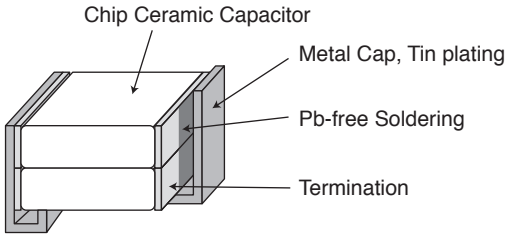
◆APPLICATIONS

1. Smoothing circuit of switching mode AC-DC or DC-DC converter.
2. On-board power supply.
3. Noise suppressor for various kinds of equipments.

◆CUSTOM MADE PRODUCTS

We can offer custom made one element metal cap type capacitors for request of customers.
Please contact us if you have questions for details.

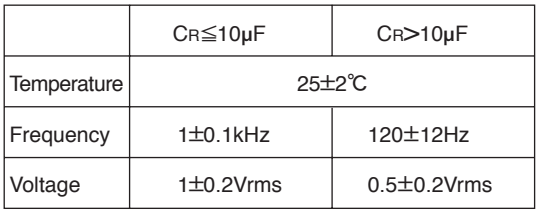
◆CONSTRUCTION



◆RATINGS

1. Category Temperature Range	-55～+125℃
2. Rated Voltage Range	25, 35, 50, 100, 250Vdc
3. Rated Capacitance Range	1.0 to 100μF
4. Rated Capacitance Tolerance	M(±20%)
5. Temperature Characteristics	X7R
6. Rated Ripple Current	See No.5 on the following table

◆SPECIFICATIONS

No.	Items	Specification	Test Condition
1	Withstand Voltage	No abnormality.	250% of rated voltage shall be applied for 5 seconds. (Only 250Vdc products : 475V)
2	Insulation Resistance	100/CR(MΩ) or 4000(MΩ) whichever is less.	Rated voltage shall be applied for 60±5 seconds at temperature 25±2℃.
3	Rated Capacitance	Within specified tolerance.	
4	Dissipation Factor	5.0% maximum	
5	Rated Ripple Current	See STANDARD RATINGS	10kHz～1MHz (sine curve) Ripple voltage Vp shall be less than the rated voltage.

	CR≦10μF	CR>10μF
Temperature	25±2℃	
Frequency	1±0.1kHz	120±12Hz
Voltage	1±0.2Vrms	0.5±0.2Vrms

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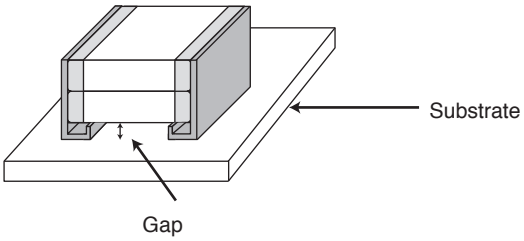
◆SPECIFICATIONS

No.	Items	Specification	Test Condition
6	Temperature Cycle	Appearance : No visible damage. ΔC/C : ±15% D.F. : To meet the initial specification. I.R. : To meet the initial specification.	<table><tr><th>Step</th><th>Temperature (℃)</th><th>(min.)</th></tr><tr><td>1</td><td>Min. Category temperature ±3</td><td>30±3</td></tr><tr><td>2</td><td>Room temperature</td><td>3 max.</td></tr><tr><td>3</td><td>Max. Category temperature ±3</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>3 max.</td></tr></table><Cycle> 1000 cycles
7	Humidity Load Life	Appearance : No abnormality. ΔC/C : ±20% D.F. : 10% max. I.R. : 25/C_R(MΩ) or 1000(MΩ) whichever is less.	Temperature : 40±2℃ Humidity : 90 to 95%RH Voltage : Rated voltage Time : 500^{+24}_{0}hours
8	Endurance	Appearance : No abnormality. ΔC/C : ±20% D.F. : 10% max. I.R. : 50/C_R(MΩ) or 1000(MΩ) whichever is less.	Temperature : 125±3℃ Voltage : Rated voltage Time : 1000^{+48}_{0}hours

*C_R : Rated Capacitance(μF)

◆Note of mountig for NTJ series.

1. The gap of capacitor and a substrate shall be the mounting face.
2. To prevent degredation of temperature cycling capability, if need to be careful about amount of solder that would not go into the inner side of terminations.



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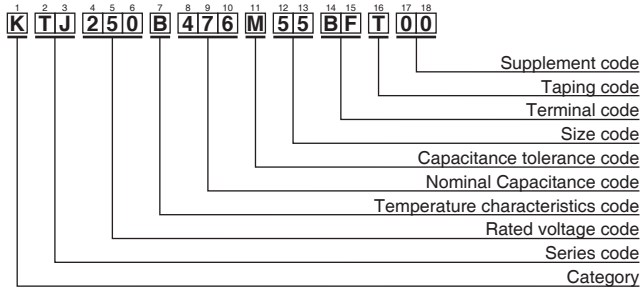
◆STANDARD RATINGS

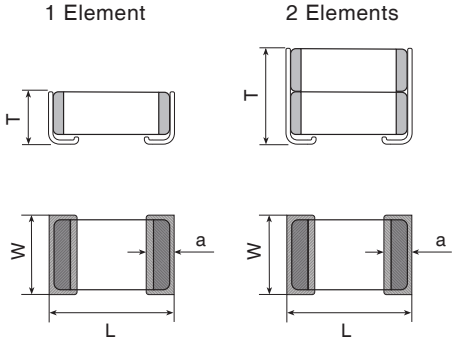
Rated voltage (Vdc)	Rated Capacitance (μF)	Electrostatic Capacitance Temperature Characteristics	Case Code	Dimensions(mm)				Element	Maximum ripple current (Arms)	Part Number	Taping Quantity per reel (pcs. / reel)
			inch / mm	L	W	T max.	a				
25	33	X7R	2220 / 5750	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ250B336M55AFT00	400
	33	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ250B336M55BFT00	2,000
	47	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ250B476M55BFT00	2,000
	68	X7R	2220 / 5750	6.0±0.4	5.3±0.4	7.0	1.3±0.3	2	3.0	KTJ250B686M55BFT00	1,500
	47	X7R	3025 / 7563	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ250B476M76AFT00	1,200
	68	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ250B686M76BFT00	500
	100	X7R	3025 / 7563	7.8±0.5	6.6±0.5	9.5	1.5±0.3	2	4.0	KTJ250B107M76BFT00	400
35	33	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ350B336M55BFT00	2,000
	47	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ350B476M55BFT00	2,000
	47	X7R	3025 / 7563	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ350B476M76AFT00	1,200
	68	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ350B686M76BFT00	500
	100	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ350B107M76BFT00	500
50	15	X7R	2220 / 5750	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ500B156M55AFT00	400
	15	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ500B156M55BFT00	2,000
	22	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ500B226M55BFT00	2,000
	33	X7R	2220 / 5750	6.0±0.4	5.3±0.4	6.5	1.3±0.3	2	3.0	KTJ500B336M55BFT00	1,500
	22	X7R	3025 / 7563	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ500B226M76AFT00	1,200
	33	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ500B336M76BFT00	500
	47	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ500B476M76BFT00	500
100	4.7	X7R	2220 / 5750	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ101B475M55AFT00	400
	6.8	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ101B685M55BFT00	2,000
	10	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ101B106M55BFT00	2,000
	15	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ101B156M55BFT00	2,000
	22	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ101B226M55BFT00	2,000
	6.8	X7R	3025 / 7563	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ101B685M76AFT00	1,200
	15	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ101B156M76BFT00	500
250	1.0	X7R	2220 / 5750	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ251B105M55AFT00	400
	1.5	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ251B155M55BFT00	2,000
	2.2	X7R	2220 / 5750	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ251B225M55BFT00	2,000
	2.2	X7R	3025 / 7563	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ251B225M76AFT00	1,200
	3.3	X7R	3025 / 7563	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	3.0	KTJ251B335M76BFT00	500

※ Please consult with us when you consider the rating other than a standard table.

◆PART NUMBERING SYSTEM



◆DIMENSIONS



Please refer to"Part Numbering System" of the beginning of a catalog for the details.

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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Precautions and Guidelines・Recommended Soldering Conditions
Part Numbering System
List of Standardization and Obsoleted Products
TAPING SPECIFICATION
Characteristics Data
Minimum Packaging Quantity

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