

# METAL CAPTYPE MULTILAYER CERAMIC CAPACITORS





#### **◆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.

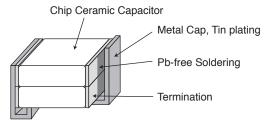
### **APPLICATIONS**

- 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**

Category Temperature Range	-55∼+125℃		
2. Rated Voltage Range	25, 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 250V <sub>dc</sub> products : 475V)		
2	Insulation Resistance	100/C <sub>R</sub> (M $\Omega$ ) or 4000(M $\Omega$ ) whichever is less.	Rated voltage shall be applied for 60±5 seconds at temperature 25±2℃.		
3	Rated Capacitance	Within specified tolerance.	CR≦10μF CR>10μF		
			Temperature 25±2°C		
4	Dissipation Factor	5.0% maximum	Frequency 1±0.1kHz 120±12Hz		
			Voltage 1±0.2Vrms 0.5±0.2Vrms		
5	Rated Ripple Current	Size         55         76           Element         1         2         1         2           Arms         2.0         3.0         3.0         4.0	10kHz~1MHz (sine curve) Ripple voltage Vp shall be less than the rated voltage.		





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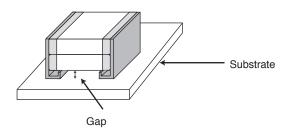
#### **SPECIFICATIONS**

No.	Items	Specification	Test Condition			
6	Temperature Cycle	Appearance : No visible damage. $\Delta C/C:\pm 15\%$ D.F. : To meet the initial specification. I.R. : To meet the initial specification.	Step     Temperature (°C)     (min.)       1     Min. Category temperature ±3     30±3       2     Room temperature     3 max.       3     Max. Category temperature ±3     30±3       4     Room temperature     3 max. <cycle>       1000 cycles</cycle>			
7	Humidity Load Life	Appearance : No abnormality. $\Delta C/C$ : $\pm 20\%$ D.F. : 10% max. I.R. : $25/C_R(M\Omega)$ or $1000(M\Omega)$ whichever is less.	Temperature: 40±2°C Humidity: 90 to 95%RH Voltage: Rated voltage Time: 500±24/0 hours			
8	Endurance	Appearance : No abnormality. $\Delta C/C$ : $\pm 20\%$ D.F. : 10% max. I.R. : $50/C_R(M\Omega)$ or $1000(M\Omega)$ whichever is less.	Temperature : 125±3°C Voltage : Rated voltage Time : 1000± <sup>48</sup> / <sub>0</sub> hours			

\*CR: 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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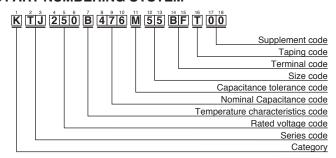


#### **STANDARD RATINGS**

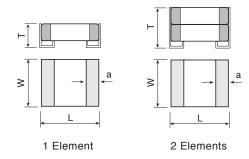
Rated voltage	Rated Capacitance (µF)	Dimensions(mm)				Maximum	5	
(Vdc)		L	w	Tmax.	а	Element	ripple current (Arms)	Part Number
	33	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ250B336M55AFT00
	33	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ250B336M55BFT00
25	47							KTJ250B476M55BFT00
	47	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ250B476M76AFT00
	68	7.8±0.5	6.6±0.5	8.5	- 1.5±0.3	2	4.0	KTJ250B686M76BFT00
	100	1 /.o±0.5	0.0±0.5	9.5				KTJ250B107M76BFT00
	15	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ500B156M55AFT00
	15	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ500B156M55BFT00
50	22	0.0±0.4						KTJ500B226M55BFT00
	22	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ500B226M76AFT00
	33	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ500B336M76BFT00
	47							KTJ500B476M76BFT00
	4.7	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ101B475M55AFT00
	6.8	00.04	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ101B685M55BFT00
100	10	10 6.0±0.4						KTJ101B106M55BFT00
	6.8	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ101B685M76AFT00
	15	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	4.0	KTJ101B156M76BFT00
	1.0	6.0±0.4	5.3±0.4	3.8	1.3±0.3	1	2.0	KTJ251B105M55AFT00
	1.5	6.0±0.4	5.3±0.4	5.5	1.3±0.3	2	3.0	KTJ251B155M55BFT00
250	2.2			6.5				KTJ251B225M55BFT00
	2.2	7.8±0.5	6.6±0.5	5.5	1.5±0.3	1	3.0	KTJ251B225M76AFT00
	3.3	7.8±0.5	6.6±0.5	8.5	1.5±0.3	2	3.0	KTJ251B335M76BFT00

<sup>%</sup>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.

CAT. No. E1002T

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CGA2B2C0G1H040C CGA2B2C0G1H050C CGA2B2C0G1H060D CGA2B2C0G1H070D CGA2B2C0G1H151J CGA2B2C0G1H1R5C

CGA2B2C0G1H2R2C CGA2B2C0G1H3R3C CGA2B2C0G1H680J CGA2B2C0G1H6R8D CGA2B2X8R1H221K CGA2B2X8R1H472K

CGA3E1X7R1C474K