

阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

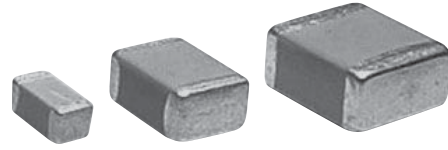
NTS Series / NTF Series



Temperature cycle : 1000 cycles

◆FEATURES

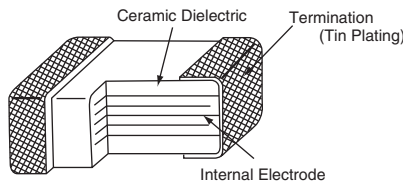
1. Large capacitance by small size.
2. Excellent noise absorption.
3. High permissible ripple current capability.
4. NTF: Temperature cycle : 1000 cycles.



◆APPLICATIONS

1. Smoothing circuit of DC-DC converters.
2. On-board power supplies.
3. Voltage regulators for computers.
3. Noise suppressor for various kinds of equipments.
4. High reliability equipments.

◆CONSTRUCTION



◆RATINGS

1. Category Temperature Range	-55 to +125°C
2. Rated Voltage Range	25, 50, 100, 250V _{dc}
3. Rated Capacitance Range	0.033 to 33μF
4. Rated Capacitance Tolerance	M (±20%) : Standard, K (±10%)
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 _{dc} product : 475V)												
2	Insulation Resistance	100/C _R (MΩ) or 4000(MΩ) whichever is less.	Rated voltage shall be applied for 60±5 seconds at temperature 25±2°C.												
3	Rated Capacitance	Within specified tolerance.	<table border="1"> <tr> <td></td> <td>C_R≤10μF</td> <td>C_R>10μF</td> </tr> <tr> <td>Temperature</td> <td colspan="2">25±2°C</td> </tr> <tr> <td>Frequency</td> <td>1±0.1kHz</td> <td>120±12Hz</td> </tr> <tr> <td>Voltage</td> <td>1±0.2V_{rms}</td> <td>0.5±0.2V_{rms}</td> </tr> </table>		C _R ≤10μF	C _R >10μF	Temperature	25±2°C		Frequency	1±0.1kHz	120±12Hz	Voltage	1±0.2V _{rms}	0.5±0.2V _{rms}
	C _R ≤10μF	C _R >10μF													
Temperature	25±2°C														
Frequency	1±0.1kHz	120±12Hz													
Voltage	1±0.2V _{rms}	0.5±0.2V _{rms}													
4	Dissipation Factor	5.0% maximum.	<table border="1"> <tr> <td>Frequency</td> <td>1±0.1kHz</td> <td>120±12Hz</td> </tr> <tr> <td>Voltage</td> <td>1±0.2V_{rms}</td> <td>0.5±0.2V_{rms}</td> </tr> </table>	Frequency	1±0.1kHz	120±12Hz	Voltage	1±0.2V _{rms}	0.5±0.2V _{rms}						
Frequency	1±0.1kHz	120±12Hz													
Voltage	1±0.2V _{rms}	0.5±0.2V _{rms}													
5	Rated Ripple Current	<table border="1"> <tr> <td>Size code</td> <td>31</td> <td>32</td> <td>43</td> <td>55</td> </tr> <tr> <td>Arms</td> <td>0.3</td> <td>0.5</td> <td>1.0</td> <td>2.0</td> </tr> </table>	Size code	31	32	43	55	Arms	0.3	0.5	1.0	2.0	10kHz~1MHz (sine curve) Ripple voltage V _p shall be less than the rated voltage.		
Size code	31	32	43	55											
Arms	0.3	0.5	1.0	2.0											

NTS Series / NTF Series

◆SPECIFICATIONS

No.	Items	Specification	Test Condition															
6	Adhesion	No visible damage.	<p>Substrate 5N (0.51kgf) for 10±1 seconds Capacitor</p>															
7	Bend strength of the face plating	Appearance : No visible damage. $\Delta C/C : \pm 15\%$	<p>The substrate shall be bend at a rate of 1mm/s for 5 seconds.</p> <p>Press Press bar Capacitor Substrate Support Bending capability*</p> <p>*Bending capability NTS : 1mm NTF : 1mm or 2mm</p>															
8	Solderability	Min. 75% of surface of the termination shall be covered with new solder	<table border="1"> <thead> <tr> <th>Solder</th> <th>Pb Free</th> <th>Eutectic</th> </tr> </thead> <tbody> <tr> <td>Solder Temperature</td> <td>245±5°C</td> <td>235±5°C</td> </tr> <tr> <td>Dipping Time</td> <td colspan="2">2±0.5sec.</td> </tr> </tbody> </table>	Solder	Pb Free	Eutectic	Solder Temperature	245±5°C	235±5°C	Dipping Time	2±0.5sec.							
Solder	Pb Free	Eutectic																
Solder Temperature	245±5°C	235±5°C																
Dipping Time	2±0.5sec.																	
9	Resistance to Soldering Heat	Appearance : No visible damage. $\Delta C/C : \pm 15\%$ D.F. : To meet the initial specification. I.R. : To meet the initial specification.	<p>Solder Temperature : 260±5°C Dipping Time : 2±0.5 seconds</p>															
10	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.	<table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>(min.)</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>For above temperature cycle. NTS : For 5 cycles NTF : For 1000 cycles</p>	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.
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.																
11	Humidity Load Life	Appearance : No abnormality. $\Delta C/C : \pm 15\%$ D.F. : 10% maximum I.R. : 25/C _R (MΩ) or 1000(MΩ) whichever is less.	<p>Temperature : 40±2°C Humidity : 90 to 95%RH Voltage : Rated voltage Time : 500±²⁴₀hours</p>															
12	Endurance	Appearance : No abnormality. $\Delta C/C : \pm 15\%$ D.F. : 10% maximum I.R. : 50/C _R (MΩ) or 1000(MΩ) whichever is less.	<p>Temperature : 125±3°C Voltage : Rated voltage Time : 1000±⁴⁸₀hours</p>															

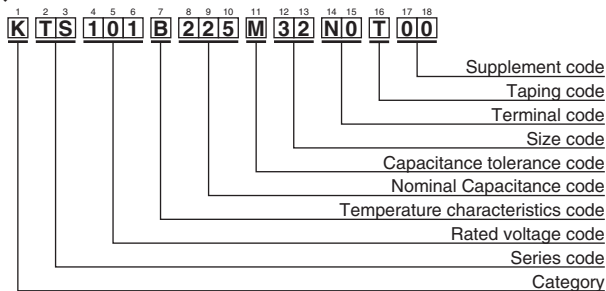
*C_R : Rated Capacitance(μF)

◆STANDARD RATINGS

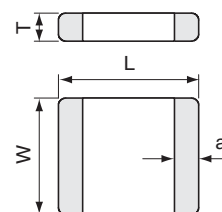
Rated voltage (Vdc)	Rated Capacitance (μF)	Dimensions(mm)				Maximum ripple current (Arms)	Part Number	Previous Part Number (Just for your reference)	
		L	W	Tmax.	a				
25	1.0	3.2±0.2	1.6±0.2	1.8	0.5±0.3	0.3	KTS250B105M31N0T00	NTS30X7R1E105MT	
	1.5						KTS250B155M31N0T00	NTS30X7R1E155MT	
	2.2						KTS250B225M31N0T00	NTS30X7R1E225MT	
	3.3	3.2±0.4	2.5±0.3	2.6	0.6±0.3	0.5	KTS250B335M32N0T00	NTS40X7R1E335MT	
	4.7						KTS250B475M32N0T00	NTS40X7R1E475MT	
	6.8						KTS250B685M32N0T00	NTS40X7R1E685MT	
	10	4.5±0.4	3.2±0.4	2.8	0.6±0.3	1.0	KTS250B106M43N0T00	NTS50X7R1E106MT	
	15						KTS250B156M43N0T00	NTS50X7R1E156MT	
	22						5.7±0.4	5.0±0.4	2.8
	33	3.0	KTS250B336M55N0T00	NTS60X7R1E336MT					
50	0.33	3.2±0.2	1.6±0.2	1.8	0.5±0.3	0.3	KTS500B334M31N0T00	NTS30X7R1H334MT	
	0.47						KTS500B474M31N0T00	NTS30X7R1H474MT	
	0.68						KTS500B684M31N0T00	NTS30X7R1H684MT	
	1.0						KTS500B105M31N0T00	NTS30X7R1H105MT	
	1.5	3.2±0.4	2.5±0.3	2.6	0.6±0.3	0.5	KTS500B155M32N0T00	NTS40X7R1H155MT	
	2.2						KTS500B225M32N0T00	NTS40X7R1H225MT	
	3.3						KTS500B335M32N0T00	NTS40X7R1H335MT	
	4.7	4.5±0.4	3.2±0.4	2.8	0.6±0.3	1.0	KTS500B475M43N0T00	NTS50X7R1H475MT	
	6.8						KTS500B685M43N0T00	NTS50X7R1H685MT	
	10						KTS500B106M55N0T00	NTS60X7R1H106MT	
	15	5.7±0.4	5.0±0.4	2.8	0.8±0.5	2.0	KTS500B156M55N0T00	NTS60X7R1H156MT	
	33						KTS101B104M31N0T00	NTS30X7R2A104MT	
	100	0.1	3.2±0.2	1.6±0.2	1.8	0.5±0.3	0.3	KTS101B154M31N0T00	NTS30X7R2A154MT
0.15		KTS101B224M31N0T00						NTS30X7R2A224MT	
0.22		KTS101B334M31N0T00						NTS30X7R2A334MT	
0.33		KTS101B474M31N0T00						NTS30X7R2A474MT	
0.47		KTS101B684M31N0T00						NTS30X7R2A684MT	
1.0		KTS101B105M32N0T00						NTS40X7R2A105MT	
1.5		3.2±0.4	2.5±0.3	2.6	0.6±0.3	0.5	KTS101B155M32N0T00	NTS40X7R2A155MT	
2.2							KTS101B225M32N0T00	NTS40X7R2A225MT	
3.3							4.5±0.4	3.2±0.4	2.8
4.7		3.2±0.5	3.2	KTS101B225M43N0T00	NTS50X7R2A225MT				
6.8				5.7±0.4	5.0±0.4	2.8	0.8±0.5	2.0	KTS101B335M43J0T00
1.0		KTS101B475M43E0T00	—						
1.5		KTS101B335M55N0T00	—						
2.2		KTS101B475M55N0T00	—						
3.3		KTS101B685M55F0T00	—						
250		0.033	3.2±0.2	1.6±0.2	1.8	0.5±0.3	0.3	KTS251B333M31N0T00	NTS30X7R2E333MT
		0.047						KTS251B473M31N0T00	NTS30X7R2E473MT
	0.068	KTS251B683M31N0T00						NTS30X7R2E683MT	
	0.1	3.2±0.4	2.5±0.3	2.6	0.6±0.3	0.5	KTS251B104M31N0T00	NTS30X7R2E104MT	
	0.15						KTS251B154M32N0T00	NTS40X7R2E154MT	
	0.22						KTS251B224M32N0T00	NTS40X7R2E224MT	
	0.33	4.5±0.4	3.2±0.4	2.8	0.6±0.3	1.0	KTS251B334M32N0T00	NTS40X7R2E334MT	
	0.47						KTS251B474M43N0T00	NTS50X7R2E474MT	
	0.68						KTS251B684M43N0T00	NTS50X7R2E684MT	
	1.0	5.7±0.4	5.0±0.4	2.8	0.8±0.5	2.0	KTS251B105M55N0T00	NTS60X7R2E105MT	
	1.5						KTS251B155M55N0T00	NTS60X7R2E155MT	

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

◆PART NUMBERING SYSTEM



◆DIMENSIONS



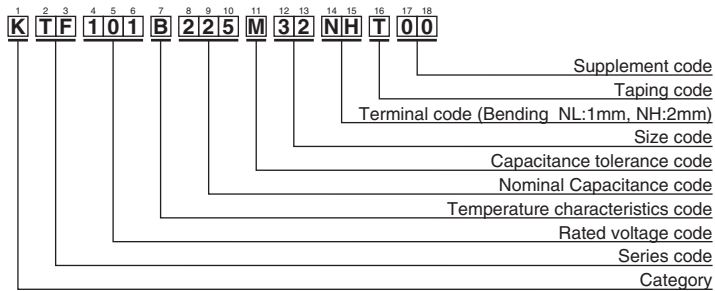
Please refer to "Part Numbering System" of the beginning of a catalog for the details.

◆STANDARD RATINGS

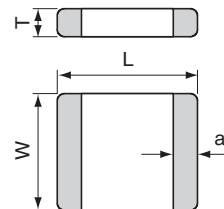
Rated voltage (Vdc)	Rated Capacitance (μF)	Dimensions(mm)				Maximum ripple current (Arms)	Part Number
		L	W	Tmax.	a		
25	1.0	3.2±0.3	1.6±0.2	1.8	0.7±0.2	0.3	KTF250B105M31NLT00
	1.5						KTF250B155M31NLT00
	2.2						KTF250B225M31NLT00
	3.3	3.2±0.4	2.5±0.3	2.6	0.7±0.2	0.5	KTF250B335M32NHT00
	4.7						KTF250B475M32NHT00
	6.8						KTF250B685M32NHT00
	10	4.5±0.4	3.2±0.4	2.8	0.7±0.2	1.0	KTF250B106M43NHT00
	15						KTF250B156M43NHT00
	22						5.7±0.4
	33	3.0	KTF250B336M55NHT00				
50	0.33	3.2±0.3	1.6±0.2	1.8	0.7±0.2	0.3	KTF500B334M31NLT00
	0.47						KTF500B474M31NLT00
	0.68						KTF500B684M31NLT00
	1.0						KTF500B105M31NLT00
	1.5	3.2±0.4	2.5±0.3	2.6	0.7±0.2	0.5	KTF500B155M32NHT00
	2.2						KTF500B225M32NHT00
	3.3						KTF500B335M32NHT00
	4.7	4.5±0.4	3.2±0.4	2.8	0.7±0.2	1.0	KTF500B475M43NHT00
	6.8						KTF500B685M43NHT00
	10						5.7±0.4
15	KTF500B156M55NHT00						
100	0.1	3.2±0.3	1.6±0.2	1.8	0.7±0.2	0.3	KTF101B104M31NLT00
	0.15						KTF101B154M31NLT00
	0.22						KTF101B224M31NLT00
	0.33						KTF101B334M31NLT00
	0.47						KTF101B474M31NLT00
	0.68						KTF101B684M31NLT00
	1.0	3.2±0.4	2.5±0.3	2.6	0.7±0.2	0.5	KTF101B105M32NHT00
	1.5						KTF101B155M32NHT00
	2.2						KTF101B225M32NHT00
	1.5	4.5±0.4	3.2±0.4	2.8	0.7±0.2	1.0	KTF101B155M43NHT00
	2.2						KTF101B225M43NHT00
	3.3						KTF101B335M43JHT00
	4.7	5.7±0.4	5.0±0.4	3.2	1.0±0.4	2.0	KTF101B475M43EHT00
	4.7			2.8			KTF101B475M55NHT00
	6.8			3.2			KTF101B685M55FHT00
	250	0.033	3.2±0.3	1.6±0.2	1.8	0.7±0.2	0.3
0.047		KTF251B473M31NLT00					
0.068		KTF251B683M31NLT00					
0.1		KTF251B104M31NLT00					
0.15		3.2±0.4	2.5±0.3	2.6	0.7±0.2	0.5	KTF251B154M32NLT00
0.22							KTF251B224M32NLT00
0.33							KTF251B334M32NLT00
0.47		4.5±0.4	3.2±0.4	2.8	0.7±0.2	1.0	KTF251B474M43NLT00
0.68							KTF251B684M43NLT00
1.0							5.7±0.4
1.5	KTF251B155M55NLT00						

※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.