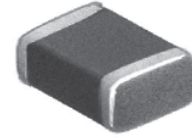


THC Series / TMC Series (High Reliability)



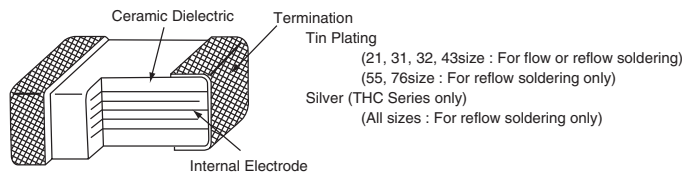
◆FEATURES

1. Small size and large capacitance, high ripple current.
2. Temperature characteristic is Y5U in EIA code.
3. Superior humidity characteristic and long life.
4. Excellent noise absorption.

◆APPLICATIONS

1. Smoothing circuit of small size DC-DC converter.
2. On-board power supply.
3. Noise suppressor for various kinds of equipments.
4. By-pass or decoupling circuits.

◆CONSTRUCTION



◆RATINGS

1. Category Temperature Range	-55 to +125°C
2. Rated Voltage Range	25, 50, 100, 200V _{dc}
3. Rated Capacitance Range	0.047 to 47μF
4. Rated Capacitance Tolerance	M (±20%), Z (±20%)
5. Temperature Characteristics	E (JIS) ≒ Y5U (EIA)
6. Rated Ripple Current	See No.5 on the following table

◆SPECIFICATIONS

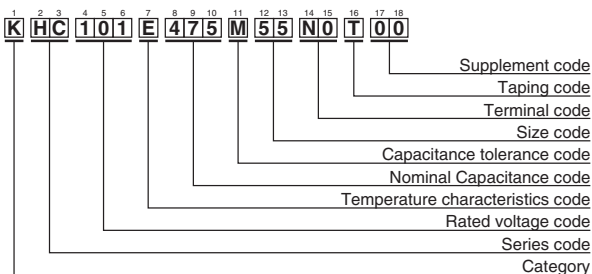
No.	Items	Specification	Test Condition														
1	Withstand Voltage	No abnormality.	250% of rated voltage shall be applied for 5 seconds.														
2	Insulation Resistance	1000/C _R (MΩ) or 10000(MΩ) whichever is less.	Rated voltage shall be applied for 60±5 seconds at temperature 20±2°C.														
3	Rated Capacitance	Within specified tolerance.	Temperature : 20±2°C Frequency : 1±0.1kHz Voltage : 1±0.2V _{rms}														
4	Dissipation Factor	5.0% maximum.	Temperature : 20±2°C Frequency : 1±0.1kHz Voltage : 1±0.2V _{rms}														
5	Rated Ripple Current	<table border="1"> <tr> <td>Size code</td> <td>21</td> <td>31</td> <td>32</td> <td>43</td> <td>55</td> <td>76</td> </tr> <tr> <td>Arms</td> <td>0.2</td> <td>0.3</td> <td>0.5</td> <td>1.0</td> <td>2.0</td> <td>3.0</td> </tr> </table>	Size code	21	31	32	43	55	76	Arms	0.2	0.3	0.5	1.0	2.0	3.0	10kHz~1MHz (sine curve) Ripple voltage V _p shall be less than the rated voltage.
Size code	21	31	32	43	55	76											
Arms	0.2	0.3	0.5	1.0	2.0	3.0											

※ This series will be no more RoHS compliant as from January,2013.
NTS/NTF series are recommended for the new design.

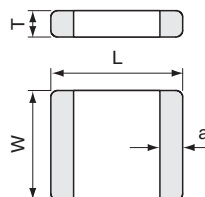
◆ STANDARD RATINGS

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	0.33	2.0±0.2	1.25±0.2	1.25	0.3±0.2	0.2	KHC250E334M21N0T00	THCS20E1E334MTF
	0.47						KHC250E474M21N0T00	THCS20E1E474MTF
	0.68						KHC250E684M21N0T00	THCS20E1E684MTF
	1.0						KHC250E105M31N0T00	THCS30E1E105MTF
	1.5	3.2±0.2	1.6±0.2	1.6	0.5±0.3	0.3	KHC250E155M31N0T00	THCS30E1E155MTF
	2.2						KHC250E225M31N0T00	THCS30E1E225MTF
	3.3						KHC250E335M32N0T00	THCS40E1E335MTF
	4.7						KHC250E475M32N0T00	THCS40E1E475MTF
	6.8	4.5±0.3	3.2±0.2	2.2	0.6±0.3	1.0	KHC250E685M43N0T00	THCS50E1E685MTF
	10						KHC250E106M43N0T00	THCS50E1E106MTF
	15						KHC250E156M43N0T00	THCS50E1E156MTF
	22						KHC250E226M55N0T00	THCS60E1E226MTF
	33	5.7±0.4	5.0±0.4	3.0	0.8±0.5	2.0	KHC250E336M55N0T00	THCS60E1E336MTF
	47			3.0			KHC250E476M76N0T00	THCS70E1E476MTF
50	0.1	2.0±0.2	1.25±0.2	1.25	0.3±0.2	0.2	KHC500E104M21N0T00	THCS20E1H104MTF
	0.15						KHC500E154M21N0T00	THCS20E1H154MTF
	0.22						KHC500E224M21N0T00	THCS20E1H224MTF
	0.33						KHC500E334M31N0T00	THCS30E1H334MTF
	0.47	3.2±0.2	1.6±0.2	1.6	0.5±0.3	0.3	KHC500E474M31N0T00	THCS30E1H474MTF
	0.68						KHC500E684M31N0T00	THCS30E1H684MTF
	1.0						KHC500E105M32N0T00	THCS40E1H105MTF
	1.5						KHC500E155M32N0T00	THCS40E1H155MTF
	2.2	3.2±0.2	2.5±0.2	2.5	0.6±0.3	0.5	KHC500E225M32N0T00	THCS40E1H225MTF
	3.3			2.2			KHC500E335M43N0T00	THCS50E1H335MTF
	4.7			3.0			KHC500E475M43N0T00	THCS50E1H475MTF
	6.8			2.2			KHC500E685M55N0T00	THCS60E1H685MTF
	10	5.7±0.4	5.0±0.4	3.0	0.8±0.5	2.0	KHC500E106M55N0T00	THCS60E1H106MTF
	15			3.0			KHC500E156M55N0T00	THCS60E1H156MTF
22	2.5			KHC500E226M76N0T00			THCS70E1H226MTF	
33	2.5			KHC500E336M55N0T00			THCS60E1H336MTF	
100	0.047	2.0±0.2	1.25±0.2	1.25	0.3±0.2	0.2	KHC101E473M21N0T00	THCS20E2A473MTF
	0.068						KHC101E683M21N0T00	THCS20E2A683MTF
	0.1						KHC101E104M31N0T00	THCS30E2A104MTF
	0.15						KHC101E154M31N0T00	THCS30E2A154MTF
	0.22	3.2±0.2	1.6±0.2	1.6	0.5±0.3	0.3	KHC101E224M31N0T00	THCS30E2A224MTF
	0.33						KHC101E334M32N0T00	THCS40E2A334MTF
	0.47						KHC101E474M32N0T00	THCS40E2A474MTF
	0.68						KHC101E684M32N0T00	THCS40E2A684MTF
	1.0	4.5±0.3	3.2±0.2	2.2	0.6±0.3	1.0	KHC101E105M43N0T00	THCS50E2A105MTF
	1.5			3.0			KHC101E155M43N0T00	THCS50E2A155MTF
	2.2			3.0			KHC101E225M43N0T00	THCS50E2A225MTF
	3.3			2.2			KHC101E335M55N0T00	THCS60E2A335MTF
	4.7	5.7±0.4	5.0±0.4	3.0	0.8±0.5	2.0	KHC101E475M55N0T00	THCS60E2A475MTF
	6.8			3.0			KHC101E685M76N0T00	THCS70E2A685MTF
10	3.0			KHC201E473M31N0T00			THCS30E2D473MTF	
15	3.0			KHC201E683M31N0T00			THCS30E2D683MTF	
200	0.047	3.2±0.2	1.6±0.2	1.6	0.5±0.3	0.3	KHC201E104M32N0T00	THCS40E2D104MTF
	0.068						KHC201E154M32N0T00	THCS40E2D154MTF
	0.1						KHC201E224M32N0T00	THCS40E2D224MTF
	0.15						KHC201E334M32N0T00	THCS40E2D334MTF
	0.22	4.5±0.3	3.2±0.3	2.2	0.6±0.3	1.0	KHC201E474M43N0T00	THCS50E2D474MTF
	0.33			3.0			KHC201E684M55N0T00	THCS60E2D684MTF
	0.47			3.0			KHC201E105M55N0T00	THCS60E2D105MTF
	0.68			2.2			KHC201E155M76N0T00	THCS70E2D155MTF
	1.0	5.7±0.4	5.0±0.4	2.5	0.8±0.5	2.0	KHC201E225M76N0T00	THCS70E2D225MTF
	1.5			3.0			KHC201E336M55N0T00	THCS60E2D336MTF
	2.2			3.0			KHC201E476M76N0T00	THCS70E2D476MTF
	3.3			2.2			KHC201E686M55N0T00	THCS60E2D686MTF

◆ PART NUMBERING SYSTEM



◆ DIMENSIONS

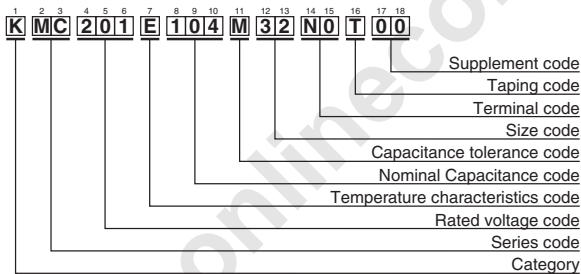


Please refer to "Part Numbering System" of the beginning of a catalog for the details.

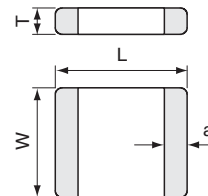
◆ STANDARD RATINGS

Rated voltage (Vdc)	Rated Capacitance (μF)	Dimensions(mm)				Maximum ripple current (Arms)	Part Number	Previous Part Number (Just for your reference)
		L	W	Tmax.	a			
25	0.68	3.2±0.2	1.6±0.2	1.6	0.4±0.2	0.3	KMC250E684M31N0T00	TMCS30E1E684MTF
	1			KMC250E105M31N0T00			TMCS30E1E105MTF	
	1.5			KMC250E155M31N0T00			TMCS30E1E155MTF	
	2.2	3.2±0.2	2.5±0.2	2.2	0.5±0.2	0.5	KMC250E225M32N0T00	TMCS40E1E225MTF
	3.3			KMC250E335M32N0T00			TMCS40E1E335MTF	
	4.7	4.5±0.3	3.2±0.2	2.5	0.5±0.3	1.0	KMC250E475M43N0T00	TMCS50E1E475MTF
	6.8			KMC250E685M43N0T00			TMCS50E1E685MTF	
	10			3.0			KMC250E106M43N0T00	TMCS50E1E106MTF
50	0.33	3.2±0.2	1.6±0.2	1.6	0.4±0.2	0.3	KMC500E334M31N0T00	TMCS30E1H334MTF
	0.47			KMC500E474M31N0T00			TMCS30E1H474MTF	
	0.68			KMC500E684M32N0T00			TMCS40E1H684MTF	
	1.0	3.2±0.2	2.5±0.2	2.2	0.5±0.2	0.5	KMC500E105M32N0T00	TMCS40E1H105MTF
	1.5			2.5			KMC500E155M32N0T00	TMCS40E1H155MTF
	2.2	4.5±0.3	3.2±0.2	2.5	0.5±0.3	1.0	KMC500E225M43N0T00	TMCS50E1H225MTF
	3.3			KMC500E335M43N0T00			TMCS50E1H335MTF	
	4.7			3.0			KMC500E475M43N0T00	TMCS50E1H475MTF
100	0.1	3.2±0.2	1.6±0.2	1.6	0.4±0.2	0.3	KMC101E104M31N0T00	TMCS30E2A104MTF
	0.15			KMC101E154M31N0T00			TMCS30E2A154MTF	
	0.22			KMC101E224M32N0T00			TMCS40E2A224MTF	
	0.33	3.2±0.2	2.5±0.2	2.2	0.5±0.2	0.5	KMC101E334M32N0T00	TMCS40E2A334MTF
	0.47			KMC101E474M32N0T00			TMCS40E2A474MTF	
	0.68	4.5±0.3	3.2±0.2	2.5	0.5±0.3	1.0	KMC101E684M43N0T00	TMCS50E2A684MTF
	1.0			KMC101E105M43N0T00			TMCS50E2A105MTF	
	1.5			3.0			KMC101E155M43N0T00	TMCS50E2A155MTF
200	0.033	3.2±0.2	1.6±0.2	1.6	0.4±0.2	0.3	KMC201E333M31N0T00	TMCS30E2D333MTF
	0.047			KMC201E473M31N0T00			TMCS30E2D473MTF	
	0.068			KMC201E683M32N0T00			TMCS40E2D683MTF	
	0.1	3.2±0.2	2.5±0.2	2.2	0.5±0.2	0.5	KMC201E104M32N0T00	TMCS40E2D104MTF
	0.15			2.5			KMC201E154M32N0T00	TMCS40E2D154MTF
	0.22	4.5±0.3	3.2±0.2	2.5	0.5±0.3	1.0	KMC201E224M43N0T00	TMCS50E2D224MTF
	0.33			KMC201E334M43N0T00			TMCS50E2D334MTF	
	0.47			3.0			KMC201E474M43N0T00	TMCS50E2D474MTF

◆ PART NUMBERING SYSTEM



◆ DIMENSIONS



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