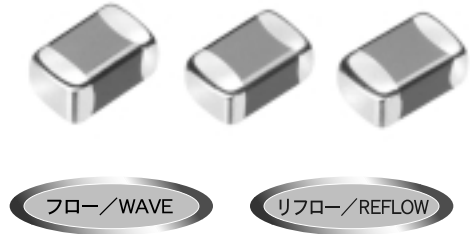


一般積層セラミックコンデンサ (温度補償用・Class 1) STANDARD MULTILAYER CERAMIC CAPACITORS (CLASS1 : TEMPERATURE COMPENSATING DIELECTRIC TYPE)

OPERATING TEMP. -55~+125°C



特長 FEATURES

- ・実装密度の向上が図れます
- ・モノリシックの構造のため、信頼性が高い
- ・同一形状、静電容量範囲が広い

- ・ Improve Higher Mounting Densities.
- ・ Multilayer block structure provides higher reliability
- ・ A wide range of capacitance values available in standard case sizes.

用途 APPLICATIONS

- ・ 一般電子機器用
- ・ 通信機器用 (携帯電話、PHS、コードレス電話 etc.)

- ・ General electronic equipment
- ・ Communication equipment (portable telephones, PHS, other wireless applications, etc.)

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DataSheet

形名表記法 ORDERING CODE

1 定格電圧 (VDC)	4 形状寸法 (EIA) L×W (mm)	6 公称静電容量 (pF)	7 容量許容差	9 個別仕様
E 16 T 25 U 50	105(0402) 1.0×0.5 107(0603) 1.6×0.8 212(0805) 2.0×1.25	例 0R5 0.5 010 1 100 10 ※R= 小数点	C ± 0.25 pF D ± 0.5 pF F ± 1 pF J ± 5 % K ± 10 %	- 標準
2 シリーズ名	5 温度特性 (ppm/°C)		8 製品厚み (mm)	10 包装
M 積層コンデンサ	C□ 0 : CG, CH, CJ, CK P□ -150 : PH, PJ, PK R□ -220 : RH, RJ, RK S□ -330 : SH, SJ, SK G ± 30 T□ -470 : TH, TJ, TK H ± 60 U□ -750 : UJ, UK J ± 120 S L +350~-1000 K ± 250 □=許容差		Q 0.6 R 0.85 T 1.25 W 0.5 Z 0.8	B 単品(袋詰め) F テーピング(2mmピッチ・178φ) T テーピング(4mmピッチ・178φ)
3 端子電極				11 当社管理記号
K メッキ品				△ 標準品 △=スペース

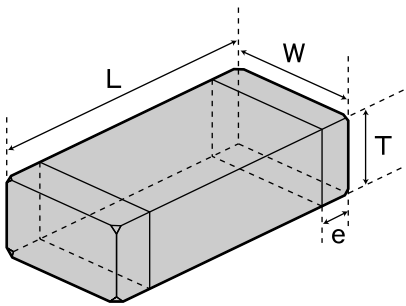
U M K 1 0 5 C H 1 0 1 J W - F ○

1 2 3 4 5 6 7 8 9 10 11

1 Rated voltage(VDC)	4 Dimensions (case size)(EIA) L×W (mm)	6 Nominal Capacitance(pF)	7 Capacitance Tolerance	9 Special code
E 16 T 25 U 50	105(0402) 1.0×0.5 107(0603) 1.6×0.8 212(0805) 2.0×1.25	example 0R5 0.5 010 1 100 10 *R=decimal point	C ± 0.25 pF D ± 0.5 pF F ± 1 pF J ± 5 % K ± 10 %	- Standard Products
2 Series name	5 Temperature characteristics(ppm/°C)		8 Thickness[mm]	10 Packaging
M Multilayer ceramic capacitor	C□ 0 : CG, CH, CJ, CK P□ -150 : PH, PJ, PK R□ -220 : RH, RJ, RK S□ -330 : SH, SJ, SK G ± 30 T□ -470 : TH, TJ, TK H ± 60 U□ -750 : UJ, UK J ± 120 S L +350~-1000 K ± 250 □=Tolerance		Q 0.6 R 0.85 T 1.25 W 0.5 Z 0.8	B Bulk F Tape(2mm pitch・178φ) T Tape(4mm pitch・178φ)
3 End termination				11 Internal code
K Solder plated				△ Standard Products △=Blank space

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外形寸法 EXTERNAL DIMENSIONS



Type (EIA)	L	W	T	e	
□MK105 (0402)	1.0±0.05 (0.039±0.002)	0.5±0.05 (0.020±0.002)	0.5±0.05 (0.020±0.002)	W	0.25±0.05 or ±0.10 (0.010±0.002 or ±0.004)
□MK107 (0603)	1.6±0.07 (0.063±0.003)	0.8±0.08 (0.031±0.003)	0.8±0.08 (0.031±0.003)	Z	0.35±0.25 (0.014±0.010)
□MK212 (0805)	2.0±0.10 (0.079±0.004)	1.25±0.1 (0.049±0.004)	0.6±0.1 (0.024±0.004)	Q	0.5±0.25 (0.020±0.010)
			0.85±0.1 (0.033±0.004)	R	
			1.25±0.1 (0.049±0.004)	T	

Unit : mm(inch)

概略バリエーション AVAILABLE CAPACITANCE RANGE

Type		105				107				212							
Temp.char.		R△	S△	T△	U△	C□	SL	C□	P□ R□ S□	U□	SL	C□	P□ R□ S□	U□	SL		
WV		16V				50V	25V	50V	25V	50V				50V			
[pF]	[pF 3digits]																
0.5	0R5																
1	010																
1.5	1R5																
2	020																
3	030																
4	040																
5	050																
5.6	5R6	W	W	W	W												
6	060																
7	070																
8	080																
9	090																
10	100	W															
11	110																
12	120																
13	130																
15	150																
16	160																
18	180																
20	200																
22	220																
24	240																
27	270																
30	300																
33	330																
36	360																
39	390																
43	430																
47	470																
51	510																
56	560																
62	620																
68	680																
75	750																
82	820																
91	910																
100	101																
110	111																
120	121																
130	131																
150	151																
160	161																
180	181																
200	201																
220	221																
240	241																
270	271																
300	301																
330	331																
360	361																
390	391																
430	431																
470	471																
510	511																
560	561																
620	621																
680	681																
750	751																
820	821																
910	911																
1000	102																
1100	112																
1200	122																
1300	132																
1500	152																
1600	162																
1800	182																
2000	202																
2200	222																
2400	242																
2700	272																
3000	302																

注：グラフの記号は製品の厚み記号です。
Note: Letter code in shaded areas are thickness codes.

温度特性 Temperature Characteristics

温度特性 Temperature char.	温度係数範囲 (ppm/°C) ※1 Temperature coefficient range	使用温度範囲 Operating Temp. range
C K	0±250	-55~+125°C
C J	0±120	
C H	0±60	
C G	0±30	
P K	-150±250	
P J	-150±120	
P H	-150±60	
R K	-220±250	
R J	-220±120	
R H	-220±60	
S K	-330±250	
S J	-330±120	
S H	-330±60	
T K	-470±250	
T J	-470±120	
T H	-470±60	
U K	-750±250	
U J	-750±120	
S L	-1000~+350	

※1：20°Cにおける静電容量を基準。
Based on the capacitance at 20°C

静電容量許容差 Capacitance Tolerance Symbol

記号 Symbol	許容差 Tolerance	区分 Item
C	±0.25pF	~5pF
D	±0.5 pF	~10pF
F	±1pF	6~10 pF
J	±5 %	11pF~
K	±10 %	11pF~

Q

Q※2 Symbol	区分 Item
≥400+20・C※1	~27pF
≥1000	30pF~

※1：C=公称静電容量 Nominal capacitance(pF)

※2：測定周波数 Measurement Frequency= 1±0.1MHz(C≤1000pF)

1±0.1kHz (C>1000pF)

測定電圧 Measurement voltage = 0.5~5Vrms(C≤1000pF)

1±0.2Vrms(C>1000pF)

アイテム一覧 PART NUMBERS

105TYPE

Class 1

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temperature characteristics																公称静電 容 量 Capacitance [pF]	静電容量 許容差 Capacitance tolerance [%]	厚み Thickness [mm] (inch)		
		CK	CJ	CH	CG	PK	PJ	PH	RK	RJ	RH	SK	SJ	SH	TK	TJ	TH				UK	UJ
50V	UMK 105 CK 0R5□W	●																		0.5	±0.25pF ±0.5 pF	0.5±0.05 (0.020±0.002)
	UMK 105 CK 010□W	●																		1		
	UMK 105 CK 1R5□W	●																		1.5		
	UMK 105 CK 020□W	●																		2		
	UMK 105 CJ 030□W		●																	3		
	UMK 105 CH 040□W			●																4		
	UMK 105 CH 050□W			●																5		
	UMK 105 CH 060□W			●																6		
	UMK 105 CH 070□W			●																7		
	UMK 105 CH 080□W			●																8		
	UMK 105 CH 090□W			●																9		
	UMK 105 CH 100□W			●																10		
	UMK 105 CH 110□W			●																11		
	UMK 105 CH 120□W			●																12		
	UMK 105 CH 130□W			●																13		
	UMK 105 CH 150□W			●																15		
	UMK 105 CH 160□W			●																16		
	UMK 105 CH 180□W			●																18		
	UMK 105 CH 200□W			●																20		
	UMK 105 CH 220□W			●																22		
	UMK 105 CH 240□W			●																24		
	UMK 105 CH 270□W			●																27		
	UMK 105 CH 300□W			●																30		
	UMK 105 CH 330□W			●																33		
	UMK 105 CH 360□W			●																36		
	UMK 105 CH 390□W			●																39		
	UMK 105 CH 430□W			●																43		
	UMK 105 CH 470□W			●																47		
	UMK 105 CH 510□W			●																51		
	UMK 105 CH 560□W			●																56		
	UMK 105 CH 620□W			●																62		
	UMK 105 CH 680□W			●																68		
	UMK 105 CH 750□W			●																75		
UMK 105 CH 820□W			●																82			
UMK 105 CH 910□W			●																91			
UMK 105 CH 101□W			●																100			
UMK 105 SL 111□W																		●	110			
UMK 105 SL 121□W																		●	120			
UMK 105 SL 131□W																		●	130			
UMK 105 SL 151□W																		●	150			
UMK 105 SL 161□W																		●	160			
UMK 105 SL 181□W																		●	180			
UMK 105 SL 201□W																		●	200			
UMK 105 SL 221□W																		●	220			
UMK 105 SL 241□W																		●	240			
UMK 105 SL 271□W																		●	270			
UMK 105 CH 111□W			●																110			
UMK 105 CH 121□W			●																120			
25V	TMK 105 CH 131□W		●																130	± 5 ±10		
	TMK 105 CH 151□W		●																150			
	TMK 105 CH 161□W		●																160			
	TMK 105 CH 181□W		●																180			
	TMK 105 CH 201□W		●																200			
	TMK 105 CH 221□W		●																220			
	TMK 105 SL 301□W																	●	300			
TMK 105 SL 331□W																	●	330				

注：形名の□には静電容量許容差記号が入ります。
□ Please specify the capacitance tolerance code.

アイテム一覧 PART NUMBERS

105TYPE

Class 1

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temperature characteristics														公称静電容量 Capacitance [pF]	静電容量許容差 Capacitance tolerance [%]	厚み Thickness [mm] (inch)				
		CK	CJ	CH	CG	PK	PJ	PH	RK	RJ	RH	SK	SJ	SH	TK				TJ	TH	UK	UJ
16V	EMK105△ 0 R 5 B W										●			●				●		0.5	±0.1pF	0.5±0.05 (0.020±0.002)
	EMK105△ 0 1 0 B W										●			●				●		1		
	EMK105△ 1 R 1 B W										●			●				●		1.1		
	EMK105△ 1 R 2 B W										●			●				●		1.2		
	EMK105△ 1 R 3 B W										●			●				●		1.3		
	EMK105△ 1 R 5 B W										●			●				●		1.5		
	EMK105△ 1 R 6 B W										●			●				●		1.6		
	EMK105△ 1 R 8 B W										●			●				●		1.8		
	EMK105△ 0 2 0 B W										●			●				●		2		
	EMK105△ 2 R 2 J W										●			●				●		2.2		
	EMK105△ 2 R 4 J W										●			●				●		2.4		
	EMK105△ 2 R 7 J W										●			●				●		2.7		
	EMK105△ 0 3 0 J W											●		●				●		3		
	EMK105△ 3 R 3 J W											●		●				●		3.3		
	EMK105△ 3 R 6 J W											●		●				●		3.6		
	EMK105△ 3 R 9 J W											●		●				●		3.9		
	EMK105△ 4 R 3 J W													●		●		●		4.3		
	EMK105△ 4 R 7 J W													●		●		●		4.7		
	EMK105△ 5 R 1 J W													●		●		●		5.1		
	EMK105△ 5 R 6 J W										●			●		●		●		5.6		
	EMK105△ 6 R 2 J W										●			●		●		●		6.2		
	EMK105△ 6 R 8 J W										●			●		●		●		6.8		
	EMK105△ 7 R 5 J W										●			●		●		●		7.5		
	EMK105△ 8 R 2 J W										●			●		●		●		8.2		
	EMK105△ 9 R 1 J W										●			●		●		●		9.1		
	EMK105△ 1 0 0 J W										●			●		●		●		10		
	EMK105△ 1 1 0 J W										●			●		●		●		11		
	EMK105△ 1 2 0 J W										●			●		●		●		12		
	EMK105△ 1 3 0 J W										●			●		●		●		13		
	EMK105△ 1 5 0 J W										●			●		●		●		15		
	EMK105△ 1 6 0 J W										●			●		●		●		16		
	EMK105△ 1 8 0 J W										●			●		●		●		18		
EMK105△ 2 0 0 J W										●			●		●		●		20			

注：形名の△には温度特性、□には静電容量許容差記号が入ります。

△ Please specify the temperature characteristics code and □ the capacitance tolerance code.

アイテム一覧 PART NUMBERS

107TYPE

Class 1

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temperature characteristics																公称静電容量 Capacitance [pF]	静電容量許容差 Capacitance tolerance [%]	厚み Thickness [mm] (inch)			
		CK	CJ	CH	CG	PK	PJ	PH	RK	RJ	RH	SK	SJ	SH	TK	TJ	TH				UK	UJ	SL
50V	UMK 107 △ 0R5□Z	●				●			●		●			●			●		●	0.5	±0.25pF ±0.5 pF	0.8±0.08 (0.031±0.003)	
	UMK 107 △ 010□Z	●				●			●		●			●			●		●	1			
	UMK 107 △ 1R5□Z	●				●			●		●			●			●		●	1.5			
	UMK 107 △ 020□Z	●				●			●		●			●			●		●	2			
	UMK 107 △ 030□Z		●			●			●		●			●			●		●	3			
	UMK 107 △ 040□Z			●		●			●		●			●			●		●	4			
	UMK 107 △ 050□Z			●		●			●		●			●			●		●	5			
	UMK 107 △ 060□Z			●		●			●		●			●			●		●	6			
	UMK 107 △ 070□Z			●		●			●		●			●			●		●	7			
	UMK 107 △ 080□Z			●		●			●		●			●			●		●	8			
	UMK 107 △ 090□Z			●		●			●		●			●			●		●	9			
	UMK 107 △ 100□Z			●	●				●		●			●			●		●	10	±0.5pF ±1 pF		
	UMK 107 △ 110 JZ			●	●				●		●			●			●		●	11			±5
	UMK 107 △ 120□Z			●	●				●		●			●			●		●	12			±5,±10
	UMK 107 △ 130 JZ			●	●				●		●			●			●		●	13			±5
	UMK 107 △ 150□Z			●	●				●		●			●			●		●	15	±5,±10		
	UMK 107 △ 160 JZ			●	●				●		●			●			●		●	16	±5		
	UMK 107 △ 180□Z			●	●				●		●			●			●		●	18	±5,±10		
	UMK 107 △ 200 JZ			●	●				●		●			●			●		●	20	±5		
	UMK 107 △ 220□Z			●	●				●		●			●			●		●	22	±5,±10		
	UMK 107 △ 240 JZ			●	●				●		●			●			●		●	24	±5		
	UMK 107 △ 270□Z			●	●				●		●			●			●		●	27	±5,±10		
	UMK 107 △ 300 JZ			●	●				●		●			●			●		●	30	±5		
	UMK 107 △ 330□Z			●	●				●		●			●			●		●	33	±5,±10		
	UMK 107 △ 360 JZ			●	●				●		●			●			●		●	36	±5		
	UMK 107 △ 390□Z			●	●				●		●			●			●		●	39	±5,±10		
	UMK 107 △ 430 JZ			●	●				●		●			●			●		●	43	±5		
	UMK 107 △ 470□Z			●	●				●		●			●			●		●	47	±5,±10		
	UMK 107 △ 510 JZ			●	●				●		●			●			●		●	51	±5		
	UMK 107 △ 560□Z			●	●				●		●			●			●		●	56	±5,±10		
	UMK 107 △ 620 JZ			●	●				●		●			●			●		●	62	±5		
	UMK 107 △ 680□Z			●	●				●		●			●			●		●	68	±5,±10		
	UMK 107 △ 750 JZ			●	●				●		●			●			●		●	75	±5		
	UMK 107 △ 820□Z			●	●				●		●			●			●		●	82	±5,±10		
	UMK 107 △ 910 JZ			●	●				●		●			●			●		●	91	±5		
	UMK 107 △ 101□Z			●	●				●		●			●			●		●	100	±5,±10		
	UMK 107 △ 111 JZ			●	●				●		●			●			●		●	110	±5		
	UMK 107 △ 121□Z			●	●				●		●			●			●		●	120	±5,±10		
	UMK 107 △ 131 JZ			●	●				●		●			●			●		●	130	±5		
	UMK 107 △ 151□Z			●	●				●		●			●			●		●	150	±5,±10		
UMK 107 △ 161 JZ			●	●				●		●			●			●		●	160	±5			
UMK 107 △ 181□Z			●	●				●		●			●			●		●	180	±5,±10			
UMK 107 △ 201 JZ			●	●				●		●			●			●		●	200	±5			
UMK 107 △ 221□Z			●	●				●		●			●			●		●	220	±5,±10			
UMK 107 △ 241 JZ			●	●				●		●			●			●		●	240	±5			
UMK 107 △ 271□Z			●	●				●		●			●			●		●	270	±5,±10			
UMK 107 △ 301 JZ			●	●				●		●			●			●		●	300	±5			
UMK 107 △ 331□Z			●	●				●		●			●			●		●	330	±5,±10			
UMK 107 △ 361 JZ			●	●				●		●			●			●		●	360	±5			
UMK 107 △ 391□Z			●	●				●		●			●			●		●	390	±5,±10			
UMK 107 △ 431 JZ			●	●				●		●			●			●		●	430	±5			
UMK 107 △ 471□Z			●	●				●		●			●			●		●	470	±5,±10			
UMK 107 △ 511 JZ			●	●				●		●			●			●		●	510	±5			
UMK 107 △ 561□Z			●	●				●		●			●			●		●	560	±5,±10			
UMK 107 △ 621 JZ			●	●				●		●			●			●		●	620	±5			
UMK 107 △ 681□Z			●	●				●		●			●			●		●	680	±5,±10			
UMK 107 △ 751 JZ			●	●				●		●			●			●		●	750	±5			
UMK 107 △ 821□Z			●	●				●		●			●			●		●	820	±5,±10			
UMK 107 △ 911 JZ			●	●				●		●			●			●		●	910	±5			
UMK 107 △ 102□Z			●	●				●		●			●			●		●	1000	±5,±10			

注：形名の△には温度特性、□には静電容量許容差記号が入ります。

△ Please specify the temperature characteristics code and □ the capacitance tolerance code.

アイテム一覧 PART NUMBERS

212TYPE

Class 1

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temperature characteristics																公称静電容量 Capacitance [pF]	静電容量許容差 Capacitance tolerance [%]	厚み Thickness [mm] (inch)			
		CK	CJ	CH	CG	PK	PJ	PH	RK	RJ	RH	SK	SJ	SH	TK	TJ	TH				UK	UJ	SL
50V	UMK 212 △ 0R5□Q	●				●		●			●			●			●		●	0.5	±0.25pF ±0.5 pF	0.6±0.1 (0.024±0.004)	
	UMK 212 △ 010□Q	●				●		●			●			●			●		●	1			
	UMK 212 △ 1R5□Q	●				●		●			●			●			●		●	1.5			
	UMK 212 △ 020□Q	●				●		●			●			●			●		●	2			
	UMK 212 △ 030□Q		●				●		●			●			●			●		●			3
	UMK 212 △ 040□Q			●			●		●			●			●			●		●			4
	UMK 212 △ 050□Q			●			●		●			●			●			●		●			5
	UMK 212 △ 060□Q			●			●		●			●			●			●		●			6
	UMK 212 △ 070□Q			●			●		●			●			●			●		●			7
	UMK 212 △ 080□Q			●			●		●			●			●			●		●			8
	UMK 212 △ 090□Q			●			●		●			●			●			●		●	9		
	UMK 212 △ 100□Q			●	●		●		●			●			●			●		●	10		
	UMK 212 △ 110 JQ			●	●		●		●			●			●			●		●	11		±5
	UMK 212 △ 120□Q			●	●		●		●			●			●			●		●	12		±5, ±10
	UMK 212 △ 130 JQ			●	●		●		●			●			●			●		●	13		±5
	UMK 212 △ 150□Q			●	●		●		●			●			●			●		●	15		±5, ±10
	UMK 212 △ 160 JQ			●	●		●		●			●			●			●		●	16		±5
	UMK 212 △ 180□Q			●	●		●		●			●			●			●		●	18		±5, ±10
	UMK 212 △ 200 JQ			●	●		●		●			●			●			●		●	20		±5
	UMK 212 △ 220□Q			●	●		●		●			●			●			●		●	22		±5, ±10
	UMK 212 △ 240 JQ			●	●		●		●			●			●			●		●	24		±5
	UMK 212 △ 270□Q			●	●		●		●			●			●			●		●	27		±5, ±10
	UMK 212 △ 300 JQ			●	●		●		●			●			●			●		●	30		±5
	UMK 212 △ 330□Q			●	●		●		●			●			●			●		●	33		±5, ±10
	UMK 212 △ 360 JQ			●	●		●		●			●			●			●		●	36		±5
	UMK 212 △ 390□Q			●	●		●		●			●			●			●		●	39		±5, ±10
	UMK 212 △ 430 JQ			●	●		●		●			●			●			●		●	43		±5
	UMK 212 △ 470□Q			●	●		●		●			●			●			●		●	47		±5, ±10
	UMK 212 △ 510 JQ			●	●		●		●			●			●			●		●	51		±5
	UMK 212 △ 560□Q			●	●		●		●			●			●			●		●	56		±5, ±10
	UMK 212 △ 620 JQ			●	●		●		●			●			●			●		●	62		±5
	UMK 212 △ 680□Q			●	●		●		●			●			●			●		●	68		±5, ±10
	UMK 212 △ 750 JQ			●	●		●		●			●			●			●		●	75		±5
UMK 212 △ 820□Q			●	●		●		●			●			●			●		●	82	±5, ±10		
UMK 212 △ 910 JQ			●	●		●		●			●			●			●		●	91	±5		
UMK 212 △ 101□Q			●	●		●		●			●			●			●		●	100	±5, ±10		
UMK 212 △ 111 JQ			●	●		●		●			●			●			●		●	110	±5		
UMK 212 △ 121□Q			●	●		●		●			●			●			●		●	120	±5, ±10		
UMK 212 △ 131 JQ			●	●		●		●			●			●			●		●	130	±5		
UMK 212 △ 151□Q			●	●		●		●			●			●			●		●	150	±5, ±10		
UMK 212 △ 161 JQ			●	●		●		●			●			●			●		●	160	±5		
UMK 212 △ 181□Q			●	●		●		●			●			●			●		●	180	±5, ±10		
UMK 212 △ 201 JQ			●	●		●		●			●			●			●		●	200	±5		
UMK 212 △ 221□Q			●	●		●		●			●			●			●		●	220	±5, ±10		

注：形名の△には温度特性、□には静電容量許容差記号が入ります。
△ Please specify the temperature characteristics code and □ the capacitance tolerance code.

次ページへ続く
Continued on next page

アイテム一覧 PART NUMBERS

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temperature characteristics														公称静電 容 Capacitance [pF]	静電容量 許容差 Capacitance tolerance [%]	厚み Thickness [mm] (inch)				
		CK	CJ	CH	CG	PK	PJ	PH	RK	RJ	RH	SK	SJ	SH	TK				TJ	TH	UK	UJ
50V	UMK 212 △ 241 JQ			●	●			●			●			●			●	●	●	240	±5	0.6±0.1 (0.024±0.004)
	UMK 212 △ 271 □Q			●	●			●			●			●			●	●	●	270	±5, ±10	
	UMK 212 △ 301 JQ			●	●			●			●			●			●	●	●	300	±5	
	UMK 212 △ 331 □Q			●	●			●			●			●			●	●	●	330	±5, ±10	
	UMK 212 △ 361 JQ			●	●			●			●			●			●	●	●	360	±5	
	UMK 212 △ 391 □Q			●	●			●			●			●			●	●	●	390	±5, ±10	
	UMK 212 △ 431 JQ			●	●			●			●			●			●	●	●	430	±5	
	UMK 212 △ 471 □Q			●	●			●			●			●			●	●	●	470	±5, ±10	
	UMK 212 △ 511 JQ			●	●			●			●			●			●	●	●	510	±5	
	UMK 212 △ 561 □Q			●	●			●			●			●			●	●	●	560	±5, ±10	
	UMK 212 △ 621 JQ			●	●			●			●			●			●	●	●	620	±5	
	UMK 212 △ 681 □◇			●	●			●			●			●			●	●	●	680	±5, ±10	
	UMK 212 △ 751 J◇			●	●			●			●			●			●	●	●	750	±5	
	UMK 212 △ 821 □◇			●	●			●			●			●			●	●	●	820	±5, ±10	
	UMK 212 △ 911 J◇			●	●			●			●			●			●	●	●	910	±5	
	UMK 212 △ 102 □◇			●	●			●			●			●			●	●	●	1000	±5, ±10	
	UMK 212 △ 112 J◇			●	●													●	●	1100	±5	
	UMK 212 △ 122 □◇			●	●													●	●	1200	±5, ±10	
	UMK 212 △ 132 J◇			●	●													●	●	1300	±5	
	UMK 212 △ 152 □R			●	●													●	●	1500	±5, ±10	
UMK 212 △ 162 JR			●	●													●	●	1600	±5		
UMK 212 △ 182 □R			●	●													●	●	1800	±5, ±10		
UMK 212 △ 202 JR			●	●													●	●	2000	±5		
UMK 212 △ 222 □R			●	●													●	●	2200	±5, ±10		
UMK 212 △ 242 JT																	●	●	2400	±5		
UMK 212 △ 272 □T																	●	●	2700	±5, ±10		
UMK 212 △ 302JT																	●	●	3000	±5		

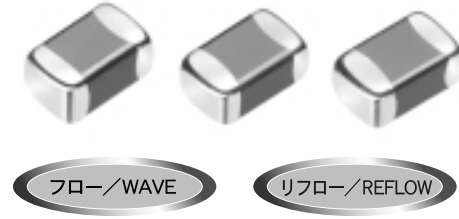
注：形名の△には温度特性、□には静電容量許容差、◇には厚み記号が入ります。

△ Please specify the temperature characteristics code and □ the capacitance tolerance code and ◇ the thickness code.

一般積層セラミックコンデンサ (高誘電率系・Class 2)

STANDARD MULTILAYER CERAMIC CAPACITORS (CLASS2 :HIGH DIELECTRIC CONSTANT TYPE)

OPERATING TEMP.	B	B/BJ	-25~+85°C
		X7R	-55~+125°C
		X5R	-55~+85°C
	F	F	-25~+85°C
		Y5V	-30~+85°C



特長 FEATURES

- ・実装密度の向上が図れます
- ・モノリシックの構造のため、信頼性が高い
- ・同一形状、静電容量範囲が広い

- ・ Improve Higher Mounting Densities.
- ・ Multilayer block structure provides higher reliability
- ・ A wide range of capacitance values available in standard case sizes.

用途 APPLICATIONS

- ・一般電子機器用
- ・通信機器用 (携帯電話、PHS、コードレス電話 etc.)

- ・ General electronic equipment
- ・ Communication equipment (portable telephones, PHS, other wireless applications, etc.)

形名表記法 ORDERING CODE

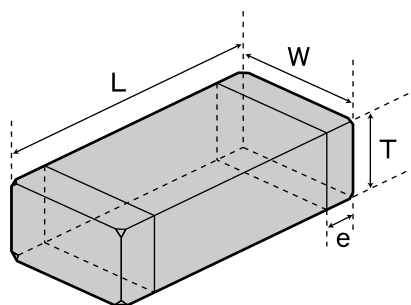
1 定格電圧 (VDC)	4 形状寸法 (EIA)L×W(mm)	6 公称静電容量 (pF)	7 容量許容差 (%)	9 個別仕様
J 6.3 L 10 E 16 T 25 U 50	105(0402) 1.0×0.5 107(0603) 1.6×0.8 212(0805) 2.0×1.25	例 102 1000 223 22000	K ±10 M ±20 Z ±20 ⁸⁰	- 標準
2 シリーズ名	5 温度特性		8 製品厚み (mm)	10 包装
M 積層コンデンサ	△B, BJ ±10% △F ±20% ⁸⁰ △=スペース		Q 0.6 R 0.85 S 1.15 T 1.25 V 0.5 Z 0.8	B 単品 (袋詰め) F テーピング (2mmピッチ・178φ) T テーピング (4mmピッチ・178φ)
3 端子電極				11 当社管理記号
K メッキ品				△ 標準 △=スペース

L M K 1 0 5 B J 1 0 4 K V - T ○

1 2 3 4 5 6 7 8 9 10 11

1 Rated voltage (VDC)	4 Dimensions (case size) (L×W) (mm)	6 Nominal Capacitance (pF)	7 Capacitance Tolerance (%)	9 Special code
J 6.3 L 10 E 16 T 25 U 50	105(0402) 1.0×0.5 107(0603) 1.6×0.8 212(0805) 2.0×1.25	example 102 1000 223 22000	K ±10 M ±20 Z ±20 ⁸⁰	- Standard products
2 Series name	5 Temperature characteristics code		8 Thickness (mm)	10 Packaging
M Multilayer ceramic capacitor	△B X7R -55~+125°C ±15% BJ ±15% △F Y5V -30~+85°C ±20% ⁸⁰ △=Blank space		Q 0.6 R 0.85 S 1.15 T 1.25 V 0.5 Z 0.8	B Bulk F Tape&Reel (2mm pitch・178φ) T Tape&Reel (4mm pitch・178φ)
3 End termination				11 Internal code
K Solder plated				△ Standard Products △=Blank space

外形寸法 EXTERNAL DIMENSIONS



Type(EIA)	L	W	T	V	e
□MK105 (0402)	1.0±0.05 (0.039±0.002)	0.5±0.05 (0.020±0.002)	0.5±0.05 (0.020±0.002)	V	0.25±0.05 (0.010±0.002)
□MK107 (0603)	1.6±0.07 (0.063±0.003)	0.8±0.08 (0.031±0.003)	0.8±0.08 (0.031±0.003)	Z	0.35±0.25 (0.014±0.010)
□MK212 (0805)	2.0±0.1 (0.079±0.004)	1.25±0.1 (0.049±0.004)	0.6±0.1 (0.024±0.004)	Q	0.5±0.25 (0.020±0.010)
			0.85±0.1 (0.033±0.004)	R	
			1.25±0.1 (0.049±0.004)	T	

Unit : mm(inch)

概略バリエーション AVAILABLE CAPACITANCE RANGE

Type	Temp.char.	105										107				212							
		BJ/X7R				F/Y5V						B/X7R		F/Y5V		B/X7R		F/Y5V					
		50V	25V	16V	10V	50V	25V	16V	10V	6.3V	50V	25V	50V	25V	50V	25V	50V	25V					
Cap [pF]	WV																						
	[pF 3digits]																						
220	221	V																	Z				
270	271																						
330	331																						
390	391																						
470	471																						
560	561																						
680	681																						
820	821																						
1000	102																						
1200	122																						
1500	152																						
1800	182																						
2200	222																						
2700	272																						
3300	332																						
3900	392																						
4700	472	V																					
5600	562																						
6800	682																						
8200	822																						
10000	103																						
12000	123																						
15000	153																						
18000	183																						
22000	223																						
27000	273																						
33000	333																						
39000	393																						
47000	473																						
56000	563																						
68000	683																						
82000	823																						
100000	104																						
150000	154																						
220000	224																						
330000	334																						
470000	474																						

注：グラフの記号は製品厚み記号です。 Note : Letter codes in shaded areas are thickness codes. *1 Items are only available in X5R

温度特性 Temperature Characteristics			
温度特性 Temperature Characteristics	温度範囲 Operating temp. range [°C]	基準温度 Ref. Temp. [°C]	静電容量 変化率 Capacitance Change [%]
B/BJ	-25~85	20	±10
X7R	-55~125	25	±15
X5R	-55~85	25	±15
F	-25~85	20	+30 -80
F/Y5V	-30~85	25	+22 -82

静電容量許容差 Capacitance Tolerance		
記号 Code	許容差 Tolerance	区分 Item
K	±10%	B Char.
M	±20%	B Char.
Z	+80% -20%	F Char.

tan δ		
Type	tan δ ※1	区分 Item
107	≤2.5%	B Char.
212	≤5.0%	F Char.
	≤2.5%	B Char. 50V, 25V
105	≤3.5%	B Char. 16V, 0.027~0.047μF
	≤5.0%	F Char. 50V, 25V B Char. 0.056~0.1μF
	≤7.0%	F Char. 0.033μF, 0.047μF
	≤9.0%	F Char. 0.068μF~0.1μF
	≤11%	F Char. 0.22μF
	≤16%	F Char. 0.47μF

※1 測定周波数 Measurement frequency=1±0.1kHz
測定電圧 Measurement voltage =1±0.2Vrms

アイテム一覧 PART NUMBERS

105TYPE

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temp.Char	公称 静電容量 Capacitance [pF]	静電容量 許容差 Capacitance tolerance [%]	厚み Thickness (mm)(inch)
50V	UMK105 BJ221□V	BJ/X7R	220	±10 ±20	0.5±0.05 (0.020±0.002)
	UMK105 BJ271□V		270		
	UMK105 BJ331□V		330		
	UMK105 BJ391□V		390		
	UMK105 BJ471□V		470		
	UMK105 BJ561□V		560		
	UMK105 BJ681□V		680		
	UMK105 BJ821□V		820		
	UMK105 BJ102□V		1000		
	UMK105 BJ122□V		1200		
	UMK105 BJ152□V		1500		
	UMK105 BJ182□V		1800		
	UMK105 BJ222□V		2200		
	UMK105 BJ272□V		2700		
UMK105 BJ332□V	3300				
UMK105 BJ392□V	3900				
25V	TMK105 BJ472□V		4700		
	TMK105 BJ562□V		5600		
	TMK105 BJ682□V		6800		
16V	EMK105 BJ822□V		8200		
	EMK105 BJ103□V		10000		
	EMK105 BJ123□V		12000		
	EMK105 BJ153□V		15000		
	EMK105 BJ183□V		18000		
	EMK105 BJ223□V		22000		
10V	LMK105 BJ273□V		27000		
	LMK105 BJ333□V		33000		
	LMK105 BJ393□V		39000		
	LMK105 BJ473□V		47000		
	LMK105 BJ563□V*1		56000		
	LMK105 BJ683□V*1		68000		
	LMK105 BJ823□V*1		82000		
	LMK105 BJ104□V*1		100000		
50V	UMK105 F 1 0 3 Z V	F/Y5V	10000	+80 -20	0.5±0.05 (0.020±0.002)
	UMK105 F 1 5 3 Z V		15000		
25V	TMK105 F 2 2 3 Z V		22000		
16V	EMK105 F 3 3 3 Z V		33000		
	EMK105 F 4 7 3 Z V		47000		
	EMK105 F 6 8 3 Z V		68000		
	EMK105 F 1 0 4 Z V		100000		
10V	LMK105 F 2 2 4 Z V		220000		
6.3V	JMK105 F 4 7 4 Z V		470000		

形名の□には静電容量許容差記号が入ります。

□Please specify the capacitance tolerance code.

*1 Items are only available in X5R

アイテム一覧 PART NUMBERS

107TYPE

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temp.Char	公称 静電容量 Capacitance (pF)	静電容量 許容差 Capacitance tolerance [%]	厚み Thickness (mm)(inch)
50V	UMK107 B 331 □ Z	B /X7R	330	±10, ±20	0.8±0.08 (0.031±0.003)
	UMK107 B 391 K Z		390	±10	
	UMK107 B 471 □ Z		470	±10, ±20	
	UMK107 B 561 K Z		560	±10	
	UMK107 B 681 □ Z		680	±10, ±20	
	UMK107 B 821 K Z		820	±10	
	UMK107 B 102 □ Z		1000	±10, ±20	
	UMK107 B 122 K Z		1200	±10	
	UMK107 B 152 □ Z		1500	±10, ±20	
	UMK107 B 182 K Z		1800	±10	
	UMK107 B 222 □ Z		2200	±10, ±20	
	UMK107 B 272 K Z		2700	±10	
	UMK107 B 332 □ Z		3300	±10, ±20	
	UMK107 B 392 K Z		3900	±10	
	UMK107 B 472 □ Z		4700	±10, ±20	
	UMK107 B 562 K Z		5600	±10	
	UMK107 B 682 □ Z		6800	±10, ±20	
UMK107 B 822 K Z	8200		±10		
UMK107 B 103 □ Z	10000		±10, ±20		
25V	TMK107 B 331 □ Z		330	±10, ±20	
	TMK107 B 391 K Z		390	±10	
	TMK107 B 471 □ Z		470	±10, ±20	
	TMK107 B 561 K Z		560	±10	
	TMK107 B 681 □ Z		680	±10, ±20	
	TMK107 B 821 K Z		820	±10	
	TMK107 B 102 □ Z		1000	±10, ±20	
	TMK107 B 122 K Z		1200	±10	
	TMK107 B 152 □ Z		1500	±10, ±20	
	TMK107 B 182 K Z		1800	±10	
	TMK107 B 222 □ Z		2200	±10, ±20	
	TMK107 B 272 K Z		2700	±10	
	TMK107 B 332 □ Z		3300	±10, ±20	
	TMK107 B 392 K Z		3900	±10	
	TMK107 B 472 □ Z	4700	±10, ±20		
	TMK107 B 562 K Z	5600	±10		
	TMK107 B 682 □ Z	6800	±10, ±20		
TMK107 B 822 K Z	8200	±10			
TMK107 B 103 □ Z	10000	±10, ±20			
TMK107 B 123 K Z	12000	±10			
TMK107 B 153 □ Z	15000	±10, ±20			
TMK107 B 183 K Z	18000	±10			
TMK107 B 223 □ Z	22000	±10, ±20			
50V	UMK107 F 152 Z Z	F/Y5V	1500	+80 -20	
	UMK107 F 222 Z Z		2200		
	UMK107 F 332 Z Z		3300		
	UMK107 F 472 Z Z		4700		
	UMK107 F 682 Z Z		6800		
	UMK107 F 103 Z Z		10000		
	UMK107 F 153 Z Z		15000		
	UMK107 F 223 Z Z		22000		
25V	TMK107 F 152 Z Z		1500		
	TMK107 F 222 Z Z		2200		
	TMK107 F 332 Z Z		3300		
	TMK107 F 472 Z Z		4700		
	TMK107 F 682 Z Z		6800		
	TMK107 F 103 Z Z		10000		
	TMK107 F 153 Z Z		15000		
	TMK107 F 223 Z Z		22000		
TMK107 F 333 Z Z	33000				
TMK107 F 473 Z Z	47000				
TMK107 F 683 Z Z	68000				
TMK107 F 104 Z Z	100000				

形名の□には静電容量許容差記号が入ります。

□Please specify the capacitance tolerance code.

アイテム一覧 PART NUMBERS

212TYPE

定格電圧 Rated Voltage (DC)	形名 Ordering code	温度特性 Temp.Char	公称 静電容量 Capacitance (pF)	静電容量 許容差 Capacitance tolerance [%]	厚み Thickness (mm)(inch)	
50V	UMK212 B681□ Q	B/X7R	680	±10,±20	0.6±0.1 (0.024±0.004)	
	UMK212 B821 K Q		820	±10		
	UMK212 B102□ Q		1000	±10,±20		
	UMK212 B122 K Q		1200	±10		
	UMK212 B152□ Q		1500	±10,±20		
	UMK212 B182 K Q		1800	±10		
	UMK212 B222□ Q		2200	±10,±20		
	UMK212 B272 K Q		2700	±10		
	UMK212 B332□ Q		3300	±10,±20		
	UMK212 B392 K Q		3900	±10		
	UMK212 B472□ Q		4700	±10,±20		
	UMK212 B562 K Q		5600	±10		
	UMK212 B682□ Q		6800	±10,±20		
	UMK212 B822 K Q		8200	±10		
	UMK212 B103□ Q		10000	±10,±20		
	UMK212 B123 K Q		12000	±10		
	UMK212 B153□ Q		15000	±10,±20		
	UMK212 B183 K Q		18000	±10		
	UMK212 B223□ Q		22000	±10,±20		
	UMK212 B273 K R		27000	±10		
UMK212 B333□ R	33000		±10,±20			
UMK212 B393 K R	39000		±10			
UMK212 B473□ T	47000		±10,±20	1.25±0.1(0.049±0.004)		
25V	TMK212 B681□ Q		680	±10,±20	0.6±0.1 (0.024±0.004)	
	TMK212 B821 K Q		820	±10		
	TMK212 B102□ Q		1000	±10,±20		
	TMK212 B122 K Q		1200	±10		
	TMK212 B152□ Q		1500	±10,±20		
	TMK212 B182 K Q		1800	±10		
	TMK212 B222□ Q		2200	±10,±20		
	TMK212 B272 K Q		2700	±10		
	TMK212 B332□ Q		3300	±10,±20		
	TMK212 B392 K Q		3900	±10		
	TMK212 B472□ Q		4700	±10,±20		
	TMK212 B562 K Q		5600	±10		
	TMK212 B682□ Q		6800	±10,±20		
	TMK212 B822 K Q		8200	±10		
	TMK212 B103□ Q		10000	±10,±20		
	TMK212 B123 K Q		12000	±10		
	TMK212 B153□ Q		15000	±10,±20		
	TMK212 B183 K Q	18000	±10			
	TMK212 B223□ Q	22000	±10,±20			
	TMK212 B273 K Q	27000	±10			
TMK212 B333□ Q	33000	±10,±20				
TMK212 B393 K R	39000	±10				
TMK212 B473□ R	47000	±10,±20	0.85±0.1 (0.033±0.004)			
TMK212 B563 K R	56000	±10				
TMK212 B683□ R	68000	±10,±20				
TMK212 B823 K T	82000	±10	1.25±0.1 (0.049±0.004)			
TMK212 B104□ T	100000	±10,±20	1.25±0.1 (0.049±0.004)			
50V	UMK212 F103 Z Q	F/Y5V	10000	+80 -20	0.6±0.1 (0.024±0.004)	
	UMK212 F153 Z Q		15000			
	UMK212 F223 Z Q		22000			
	UMK212 F333 Z Q		33000			
	UMK212 F473 Z Q		47000			
	UMK212 F683 Z Q		68000			
	UMK212 F104 Z R		100000			
	UMK212 F154 Z R		150000			
UMK212 F224 Z T	220000		1.25±0.1(0.049±0.004)			
25V	TMK212 F103 Z Q		10000	+80 -20	0.6±0.1 (0.024±0.004)	
	TMK212 F153 Z Q		15000			
	TMK212 F223 Z Q		22000			
	TMK212 F333 Z Q		33000			
	TMK212 F473 Z Q		47000			
	TMK212 F683 Z Q		68000			
	TMK212 F104 Z Q		100000			
	TMK212 F154 Z Q		150000			
	TMK212 F224 Z R		220000			0.85±0.1(0.033±0.004)
	TMK212 F334 Z T		330000			1.25±0.1
	TMK212 F474 Z T		470000			(0.049±0.004)

形名の□には静電容量許容差記号が入ります。□Please specify the capacitance tolerance code.