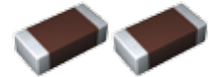


MULTILAYER CERAMIC CAPACITORS



参考資料

WAVE

REFLOW

PARTS NUMBER

J	M	K	3	1	6	△	B	J	1	0	6	M	L	-	T	△
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫					

△=Blank space

① Rated voltage

Code	Rated voltage [VDC]
P	2.5
A	4
J	6.3
L	10
E	16
T	25
G	35
U	50
H	100
Q	250
S	630

③ End termination

Code	End termination
K	Plated
S	Cu Internal Electrodes

② Series name

Code	Series name
M	Multilayer ceramic capacitor
V	Multilayer ceramic capacitor for high frequency
W	LW reverse type multilayer capacitor

④ Dimension (L × W)

Type	Dimensions (L × W) [mm]	EIA (inch)
042	0.4 × 0.2	01005
063	0.6 × 0.3	0201
105	1.0 × 0.5	0402
	0.52 × 1.0 ※	0204
107	1.6 × 0.8	0603
	0.8 × 1.6 ※	0306
212	2.0 × 1.25	0805
	1.25 × 2.0 ※	0508
316	3.2 × 1.6	1206
325	3.2 × 2.5	1210
432	4.5 × 3.2	1812

Note : ※LW reverse type (□WK) only

⑤ Dimension tolerance

Code	Type	L [mm]	W [mm]	T [mm]
△	ALL	Standard	Standard	Standard
A	063	0.6±0.05	0.3±0.05	0.3±0.05
	105	1.0±0.10	0.5±0.10	0.5±0.10
	107	1.6+0.15/-0.05	0.8+0.15/-0.05	0.8+0.15/-0.05
	212	2.0+0.15/-0.05	1.25+0.15/-0.05	0.45±0.05
				0.85±0.10
				1.25+0.15/-0.05
316	3.2±0.20	1.6±0.20	0.85±0.10	
325	3.2±0.30	2.5±0.30	1.6±0.20	
B	063	0.6±0.09	0.3±0.09	0.3±0.09
	105	1.0+0.15/-0.05	0.5+0.15/-0.05	0.5+0.15/-0.05
	107	1.6+0.20/-0	0.8+0.20/-0	0.45±0.05
				0.8+0.20/-0
	212	2.0+0.20/-0	1.25+0.20/-0	0.45±0.05
				0.85±0.10
316	3.2±0.30	1.6±0.30	1.25+0.20/-0	
C	105	1.0+0.20/-0	1.6±0.30	
			0.5+0.20/-0	

Note: P.6 Standard external dimensions

△= Blank space

⑥ Temperature characteristics code

■ High dielectric type (Excluding Super low distortion multilayer ceramic capacitor (CFCAP™))

Code	Applicable standard	Temperature range [°C]	Ref. Temp. [°C]	Capacitance change	Capacitance tolerance	Tolerance code
BJ	JIS B	-25~+85	20	±10%	±10%	K
	EIA X5R	-55~+85	25		±20%	M
B7	EIA X7R	-55~+125	25	±15%	±10%	K
					±20%	M
C6	EIA X6S	-55~+105	25	±22%	±10%	K
					±20%	M
C7	EIA X7S	-55~+125	25	±22%	±10%	K
					±20%	M
LD(※)	EIA X5R	-55~+85	25	±15%	±10%	K
					±20%	M
△F	JIS F	-25~+85	20	+30/-80%	+80/-20%	Z
	EIA Y5V	-30~+85	25			

Note : ※LD Low distortion high value multilayer ceramic capacitor

△= Blank space

▶ This catalog contains the typical specification only due to the limitation of space. When you consider the purchase of our products, please check our specification. For details of each product (characteristics graph, reliability information, precautions for use, and so on), see our Web site (<http://www.ty-top.com/>).

■Temperature compensating type

Code	Applicable standard		Temperature range [°C]	Ref. Temp. [°C]	Capacitance change	Capacitance tolerance	Tolerance code
CG	EIA	C0G	-55~+125	25	0±30ppm/°C	±0.1pF	B
						±0.25pF	C
						±0.5pF	D
						±1pF	F
						±5%	J
CH	JIS	CH	-55~+125	20	0±60ppm/°C	±0.1pF	B
						±0.25pF	C
						±0.5pF	D
	EIA	C0H		25		±1pF	F
						±5%	J
±10%	K						
CJ	JIS	CJ	-55~+125	20	0±120ppm/°C	±0.25pF	C
	EIA	C0J		25			
CK	JIS	CK	-55~+125	20	0±250ppm/°C	±0.25pF	C
	EIA	C0J		25			
UJ	JIS	UJ	-55~+125	20	-750±120ppm/°C	±0.25pF	C
	EIA	U2J		25		±0.5pF	D
UK	JIS	UK	-55~+125	20	-750±250ppm/°C	±0.5pF	C
	EIA	U2K	-55~+125	25			
SL	JIS	SL	-55~+125	20	+350~-1000ppm/°C	±5%	J

⑥Series code

(Super low distortion multilayer ceramic capacitor(CFCAP™) only)

Code	Series code
SD	Standard

•Medium-High Voltage Multilayer Ceramic Capacitors

Code	Series code
SD	Standard

⑦Nominal capacitance

Code (example)	Nominal capacitance
0R5	0.5pF
010	1pF
100	10pF
101	100pF
102	1,000pF
103	10,000pF
104	0.1 μF
105	1.0 μF
106	10 μF
107	100 μF

Note : R=Decimal point

⑧Capacitance tolerance

Code	Capacitance tolerance
B	±0.1pF
C	±0.25pF
D	±0.5pF
F	±1pF
G	±2%
J	±5%
K	±10%
M	±20%
Z	+80/-20%

⑨Thickness

Code	Thickness [mm]
C	0.2
D	
P	
T	0.3
K	
V	0.45
W	
A	0.8
D	0.85(212type or more)
F	1.15
G	1.25
L	1.6
N	1.9
Y	2.0 max
M	2.5

⑩Special code

Code	Special code
-	Standard

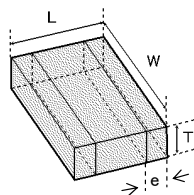
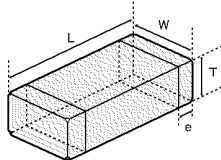
⑪Packaging

Code	Packaging
F	φ 178mm Taping (2mm pitch)
T	φ 178mm Taping (4mm pitch)
P	φ 178mm Taping (4mm pitch, 1000 pcs/reel) 325 type (Thickness code M)
W	φ 178mm Taping (1mm pitch) 042type only

⑫Internal code

Code	Internal code
Δ	Standard

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※ LW reverse type

Type(EIA)	Dimension [mm]				
	L	W	T	*1	e
□MK042(01005)	0.4±0.02	0.2±0.02	0.2±0.02	C	0.1±0.03
□VS042(01005)	0.4±0.02	0.2±0.02	0.2±0.02	D	
□MK063(0201)	0.6±0.03	0.3±0.03	0.3±0.03	C	0.15±0.05
				T	
□MK105(0402)	1.0±0.05	0.5±0.05	0.2±0.02	C	0.25±0.10
			0.3±0.03	P	
			0.5±0.05	V	
□VK105(0402)	1.0±0.05	0.5±0.05	0.5±0.05	W	0.25±0.10
□WK105(0204)※	0.52±0.05	1.0±0.05	0.3±0.05	P	0.18±0.08
□MK107(0603)	1.6±0.10	0.8±0.10	0.45±0.05	K	0.35±0.25
			0.8±0.10	A	
□WK107(0306)※	0.8±0.10	1.6±0.10	0.5±0.05	V	0.25±0.15
□MK212(0805)	2.0±0.10	1.25±0.10	0.45±0.05	K	0.5±0.25
			0.85±0.10	D	
			1.25±0.10	G	
□WK212(0508)※	1.25±0.15	2.0±0.15	0.85±0.1	D	0.3±0.2
□MK316(1206)	3.2±0.15	1.6±0.15	0.85±0.10	D	0.5+0.35/-0.25
			1.15±0.10	F	
			1.25±0.10	G	
			1.6±0.20	L	
□MK325(1210)	3.2±0.30	2.5±0.20	0.85±0.10	D	0.6±0.3
			1.15±0.10	F	
			1.9±0.20	N	
			1.9+0.1/-0.2	Y	
□MK432(1812)	4.5±0.40	3.2±0.30	2.5±0.20	M	0.9±0.6

Note : ※. LW reverse type, *1.Thickness code

STANDARD QUANTITY

Type	EIA (inch)	Dimension		Standard quantity [pcs]	
		[mm]	Code	Paper tape	Embossed tape
042	01005	0.2	C	—	40000
			D		
063	0201	0.3	P	15000	—
			T		
105	0402	0.2	C	20000	—
		0.3	P	15000	—
		0.5	V	10000	—
			W		
0204 ※	0.30	P	—	—	
107	0603	0.45	K	4000	—
		0.8	A	—	—
	0306 ※	0.50	V	—	4000
212	0805	0.45	K	4000	—
		0.85	D	—	3000
		1.25	G	—	—
0508 ※	0.85	D	4000	—	
316	1206	0.85	D	4000	—
		1.15	F	—	3000
		1.25	G	—	—
1.6	L	—	2000		
325	1210	0.85	D	—	2000
		1.15	F		
		1.9	N		
		2.0 max	Y		
432	1812	2.5	M	—	500(T), 1000(P)
				—	500

Note : ※.LW Reverse type(□WK)

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