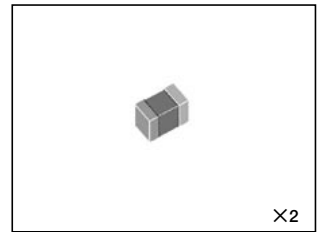




3225(1210)Size chip capacitors : MCH32

- High capacitance
- Achieved high capacitance by thin and multi layer technology
- Lead-free plating terminal
- No polarity



Quick Reference

The design and specifications are subject to change without prior notice. Before ordering or using, please check the latest technical specifications. For more detail information regarding temperature characteristic code and packaging style code, please check product destination.

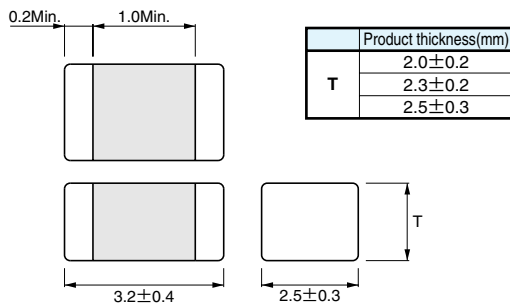
Range of thermal compensation capacitors

MCH32	Temperature		A,AN(CG) (COG) (CH) Characteristic		Packing style code
	Rated voltage(V)		50V		
	Product thickness(mm)		2.5±0.3		
	Capacitance(pF)		100,000		
Capacitance tolerance			J(±5%)		K, P
Nominal capacitance series			—		

Range of high dielectric constant capacitors

MCH32	Temperature		CN(R) (B) (X7R) Characteristic		CN(X5R) Characteristic		FN(F) (Y5V) Characteristic		Packing style code
	Rated voltage(V)		16V		10V		16V 16V		
	Product thickness(mm)		2.0±0.2		2.3±0.2		2.0±0.2		
	Capacitance(pF)		4,700,000~10,000,000		15,000,000~22,000,000		22,000,000 47,000,000		
Capacitance tolerance			M(±20%)		Z(+80%, -20%)				K, P
Nominal capacitance series			E6		E3				

External dimensions (Unit : mm)



Production designation

Part No.

MCH323FN226ZK

Rated voltage

Code	Voltage
4	10V
3	16V
5	50V

Code	Product thickness	Packing specification	Reel	Basic ordering unit(pcs.)
K	0.85mm	Paper tape(width 8mm, pitch 4mm)	φ 180mm (7in.)	4,000
P	2.3mm	Pulastic tape(width 8mm, pitch 4mm)	φ 180mm (7in.)	1,000
P	2.5mm	Pulastic tape(width 12mm, pitch 4mm)	φ 180mm (7in.)	1,000

Reel(φ 180mm);compatible with EIAJ ET-7200A

Packing style

Capacitance-temperature characteristics				Nominal capacitance	Capacitance tolerance	
Code	EIA code	Operating temp. range(°C)	Temp. coefficient or percent change		Code	Tolerance
A,AN	CG (COG)	-55~+125	0±30ppm/°C	3-digit designation according to IEC	J	±5% (11pF or more)
	CH	-55~+125	0±60ppm/°C			
CN	R	-55~+125	±15%		M	±20%
	B (X5R)	-25~+85	±10%			
	(X7R)	(-55~+85)	(±15%)			
FN	F (Y5V)	-55~+125	(±15%)		Z	+80%, -20%
		-25~+85	+30%, -80%			
		(-30~+85)	(+22%, -82%)			

Product No. list

Thermal compensation capacitors

Capacitance (pF)	Temperature		A·AN(CG) (COG) (CH) Characteristic	
	Rated voltage(V)		50V	
	Tolerance	Product thickness(mm)	Product No.	
100,000	J(±5%)	2.5±0.3	MCH325A(AN) 104JP	

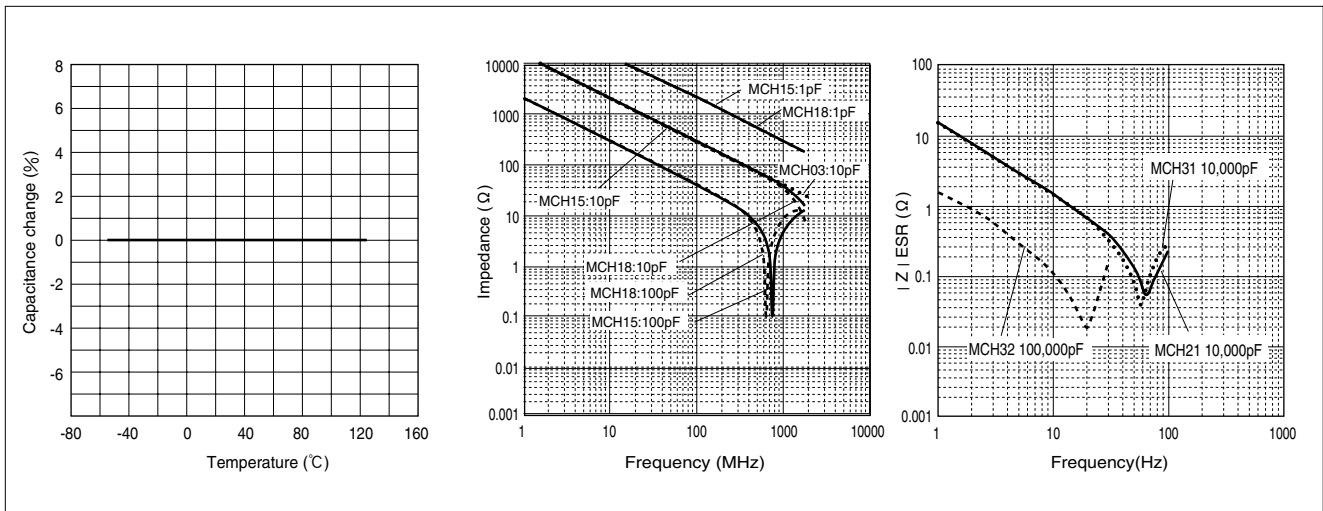
High dielectric constant capacitors

Capacitance (pF)	Temperature		CN(R) (B) (X7R) Characteristic	CN(X5R) Characteristic
	Rated voltage(V)		16V	16V
	Tolerance	Product thickness(mm)	Product No.	Product No.
4,700,000	K(±10%)	2.0±0.2	MCH323CN475MP	
6,800,000			MCH323CN685MP	
10,000,000			MCH323CN106MP	
15,000,000	2.3±0.2		MCH324CN156MP	
22,000,000			MCH324CN226MP	

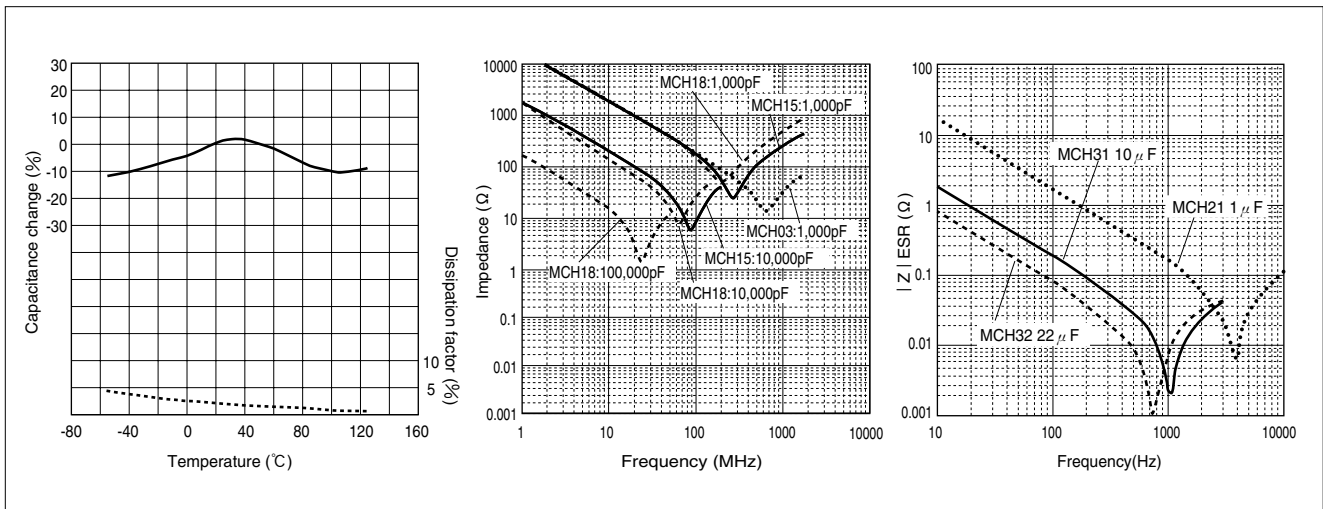
Capacitance (pF)	Temperature		FN(F) (Y5V) Characteristic	
	Rated voltage(V)		16V	10V
	Tolerance	Product thickness(mm)	Product No.	Product No.
22,000,000	Z(+80%, -20%)	2.0±0.2	MCH323FN226ZP	
47,000,000				MCH324FN476ZP

■ **Characteristics**

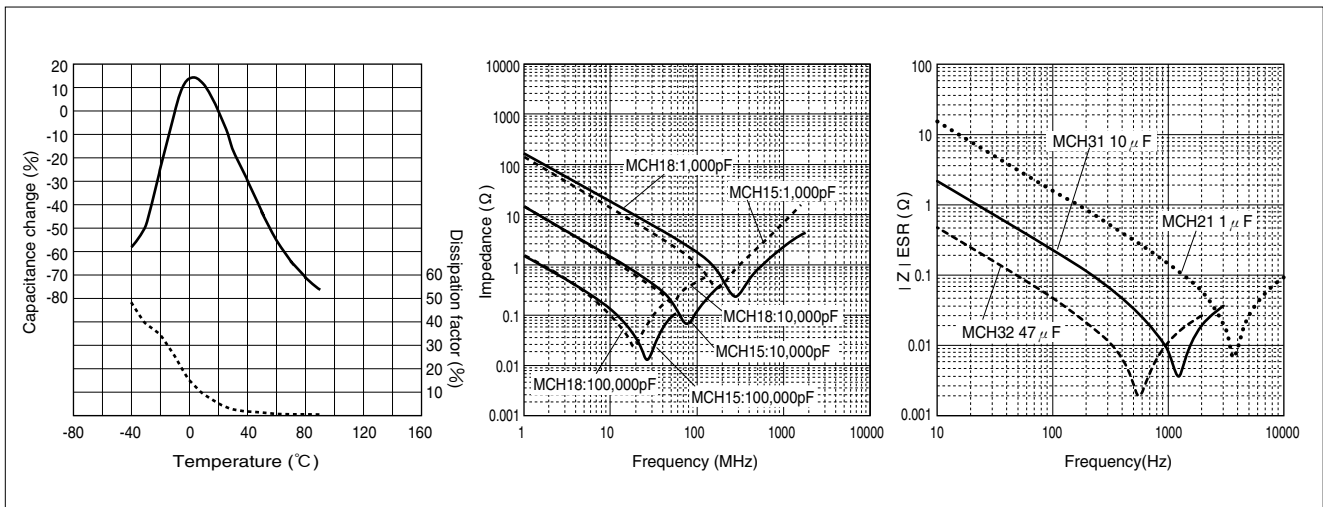
● **A (CG) (C0G) (CH) Characteristics**



● **CN (R) (B) (X5R) (X7R) Characteristics**



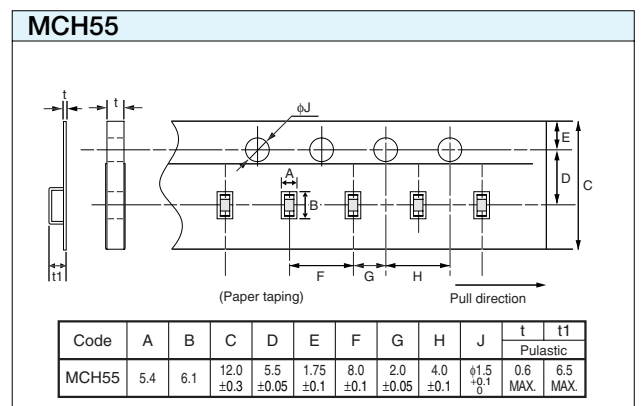
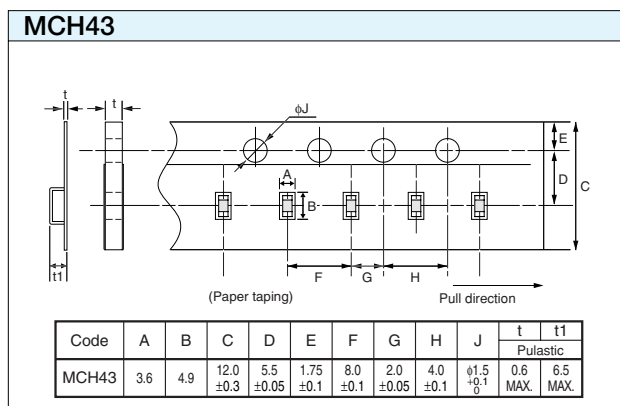
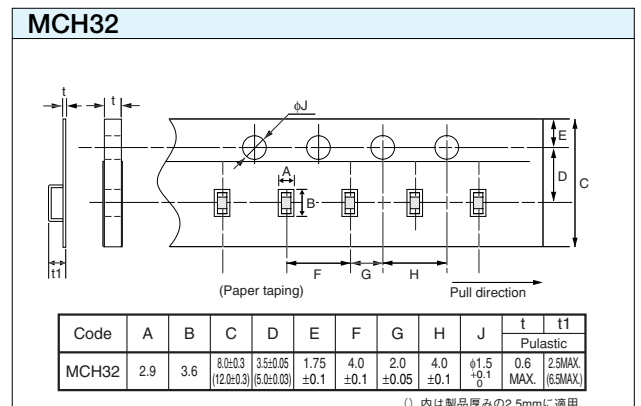
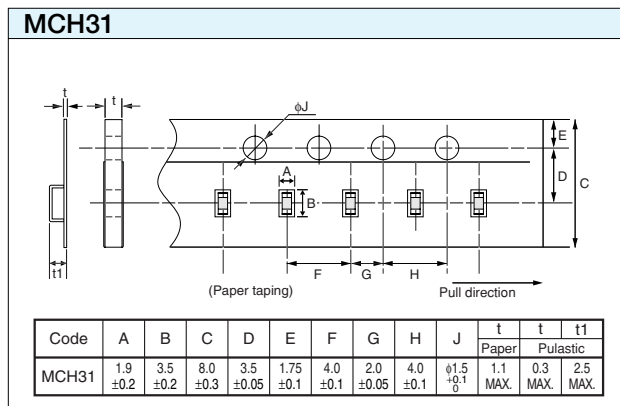
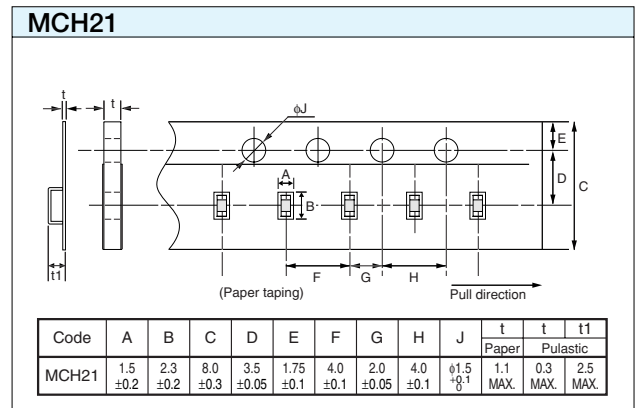
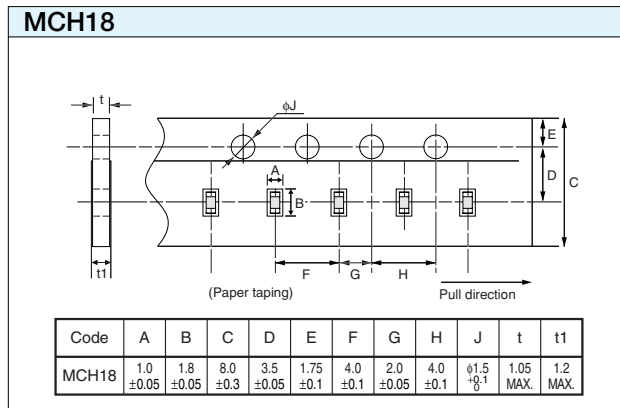
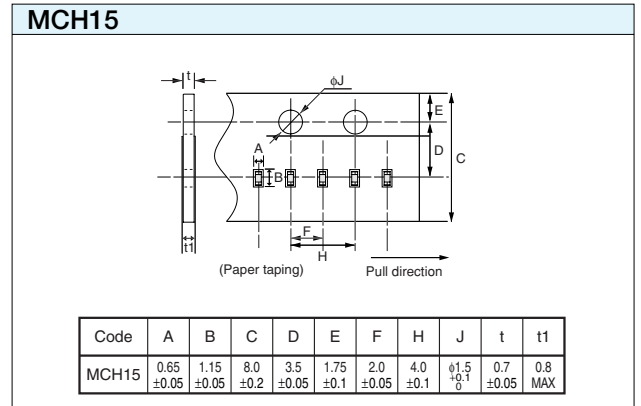
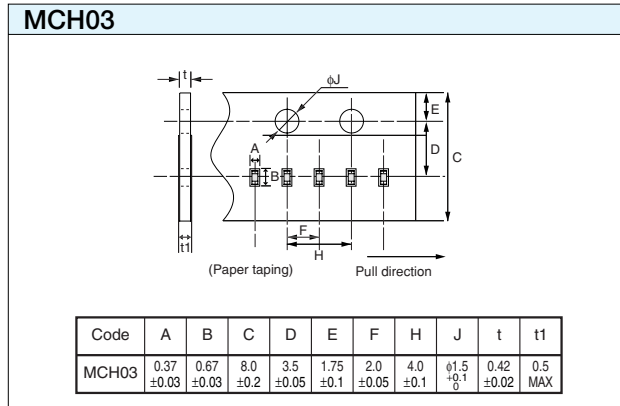
● **FN (F) (Y5V) Characteristics**





■ Packing specification

● Carrier tape dimensions (Unit:mm)

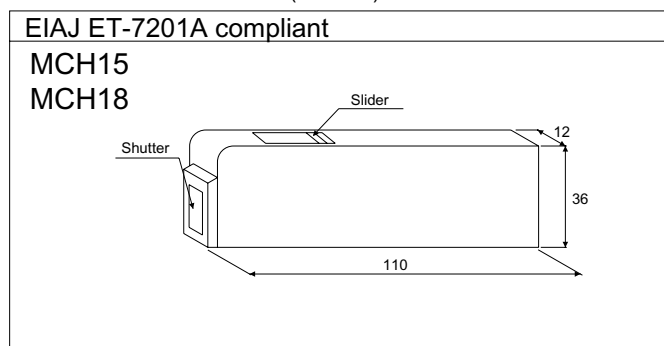


■ Packing specification

● Reel dimensions (Unit:mm)

φ180mm Plastic reel	φ330mm Plastic reel
<p>MCH03 MCH15 MCH18 MCH21 MCH31 MCH32 MCH43 MCH55</p>	<p>MCH15 MCH18</p>

● Bulk case dimensions (Unit:mm)



● For fundamental considerations on capacitors, refer to Electric Industries Association of Japan, technical report, "EIAJ RCR-2333, Guideline of notabilia for fixed multilayer ceramic capacitors for use in electronic equipment".

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